Chapter 4

DISCOVERER USER'S MANUAL AND PROGRAM RESUMES

SECTION 4A-- DISCOVERER.

4.1. Chapter Summary. This chapter explains basic concepts and provides some step-by-step instructions of Oracle Discoverer Plus.

NOTE:

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4.1.1. Purpose. This chapter provides users with information to successfully generate and/or process ad hoc queries.

4.1.2. Scope. This chapter provides detailed information on all aspects of the Discoverer ad hoc query tool.

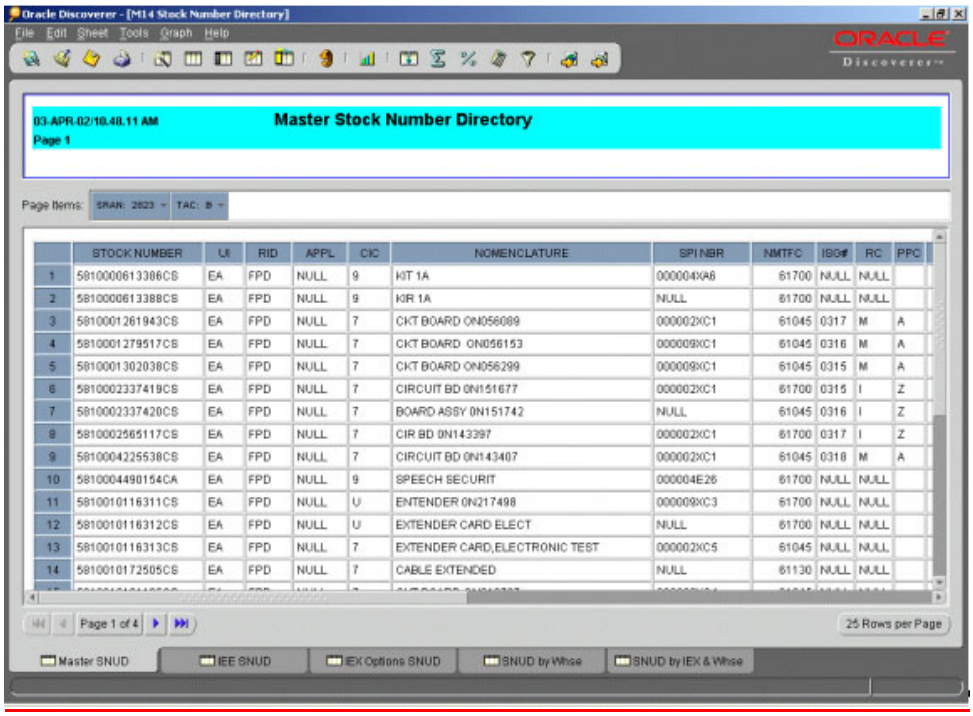
4.1.3. Audience. Primary audience for this chapter is all RPS operators and any Standard Base Supply System (SBSS) user requiring data from the reports database.

4.1.4. Prerequisites. Users of Discoverer should have a basic understanding of table relationships within the SBSS.

4.2. Overview.

4.2.1. How Discoverer Works. Discoverer provides the supply technician/analyst with a user-friendly ad hoc data retrieval tool. It gives the user capability of retrieving, organizing, and displaying data: When they want it, in the way they want it. In addition to giving the user an option of creating their own query from scratch, a number of standard ad hoc queries have been provided. Although, standard ad hoc queries contain a predefined set of data, they allow the flexibility of applying conditions, changing sort sequence, and modifying the display. This tool will also prove invaluable to the supply manager as it helps them make sound decisions with the embedded analytical functions.

Figure 4.1. Oracle Discoverer.



Discoverer solves many of the problems normally associated with databases, so that now you can easily:

Find data you know is in the database.

See data displayed quickly without waiting for the computer to spend lots of time searching through entire database.

View data in a familiar format that is easy to read and understand.

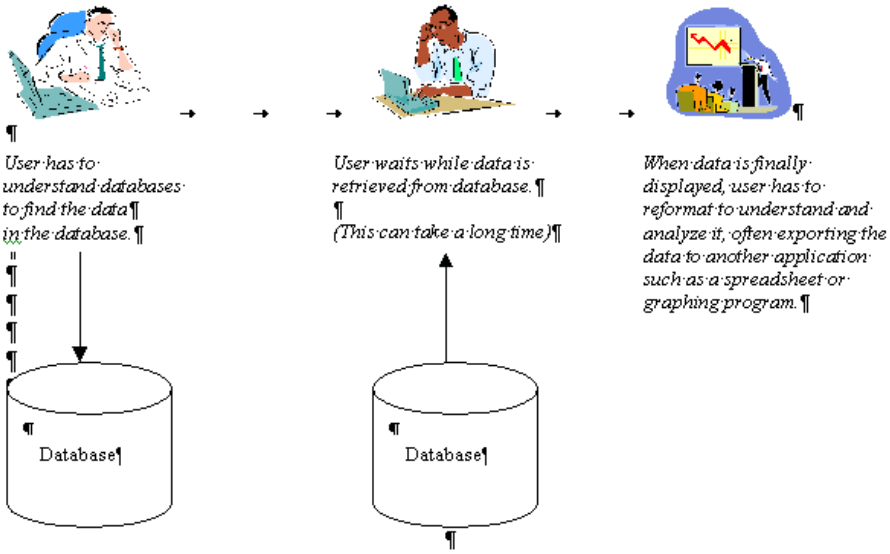
Analyze data using a wide array of techniques; including drilling up and down through the data's details, finding data that meets certain conditions or falls within ranges you specify, sorting data, comparing results from "what if" scenarios, and so on.

Prepare reports of your analytical results and findings.

Share data with others, and in other applications (such as Excel, Hyper-Text Markup Language (HTML), etc).

Discoverer uses a new, unique way of accessing data. Comparing Discoverer with previous data-access methods can help you understand new concepts used with Discoverer Plus. The following two figures compare old fashioned, data access methods with new Discoverer methods.

Figure 4.2. Old Fashion Method of Data Access.



Before you start working with discoverer: Discoverer Administrators at Standard Systems Group (SSG) create an End User Layer (EUL) providing the user a view into the reporting database. They identify all data needed by separate business areas: Inventory, Item Detail, Management, Organization, SRD/RID/I&SG, Support, System, and Transaction History.

Figure 4.3. EUL Team.

Discoverer Administration team organizes data for each business area into folders. These folders contain specific data needed for ad hoc reporting.

Figure 4.4. Admin Team.

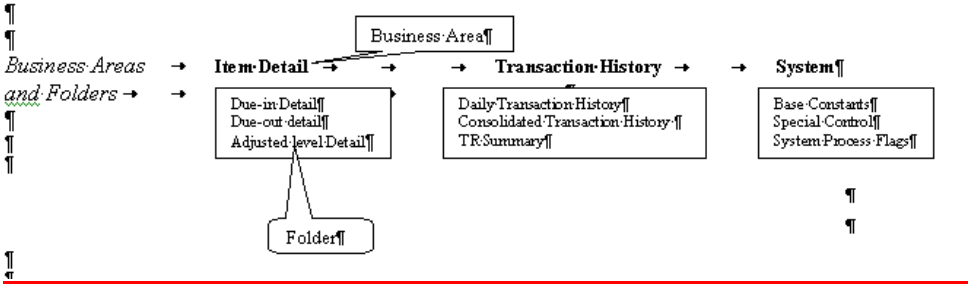
So when you want to create a query, using Discoverer…

Step 1

Figure 4.5. Computer User.

Create a workbook from the business areas and folders that contain the data you want to view and analyze.

Figure 4.6. Discoverer Method of Data Access.



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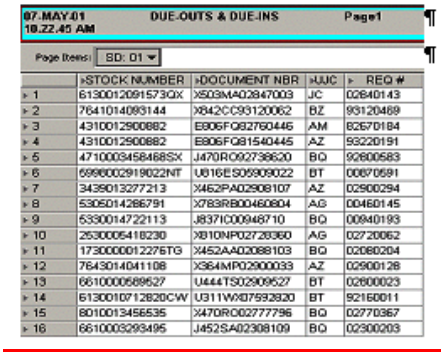
Step 2

Figure 4.7. Example of Discoverer Query.



07-MAY-01 10.22.45 AM — DUE-OUTS & DUE-INS — Page1

Page Items: SD: 01

	STOCK NUMBER	DOCUMENT NBR	UIC	REQ #
1	6130012091573QX	X503MA02847003	JC	02840143
2	7641014083144	X842CC93120062	BZ	93120469
3	4310012900882	E806FQ82760445	AM	82570184
4	4310012900882	E806FQ81540445	AZ	93220191
5	4710003458468SX	J470RO02738620	BQ	92600583
6	6990002919022NT	U816ES05909022	BT	00870591
7	3439013277213	X462PA02908107	AZ	02900294
8	5305014286791	X783RB00460804	AG	00460145
9	5330014722113	J837IC00946710	BQ	00940193
10	2530005418230	XB10NP02728360	AG	02720062
11	1730000012276TG	X452AA02088103	BQ	02080204
12	7643014041108	X364MP02900033	AZ	02900128
13	6610000589527	U444TS02909527	BT	02600023
14	6130010712820CW	U311WW07592820	BT	92160011
15	8010013456535	X470RO02777796	BQ	02770367
16	6610003293495	J452SA02308109	BQ	02300203

Run the ad hoc report. Workbook opens quickly and displays data in a familiar format. The user doesn't have to fully understand databases.

4.2.1.1. What is an End User layer (EUL)? A layer of information used by Oracle Discoverer to hide the complexities and details of underlying database. The End User Layer provides a user-friendly view into the data, making it easier and faster to create queries because it organizes the data to reflect particular business areas. The same data can also be used for more than one situation.

4.2.1.2. What is a Business Area? A business area is a logical grouping of database tables or views that apply to your specific data requirements. For example, Stock Control wants data about due-outs and due-ins, while Storage & Issue is interested in warehouse information. Although some of the required data may be the same, the exact combination of tables and views for each element or section is usually unique. Using the Administration Edition, the Discover Administrator tailors the grouping of data to provide you with the proper access to the precise data needed for analysis, decision support, and presentation of results. Business areas are further divided into folders.

4.2.1.3. The EUL for the supply reports database has been organized into eight different business areas:

4.2.1.3.1. Inventory: Contains all inventory related tables; such as inventory adjustment information, details frozen for inventory, inventory control, etc.

4.2.1.3.2. Item Detail: Contains all detail tables; such as adjusted level detail, supply point detail, part number detail, etc.

4.2.1.3.3. Management: Contains all management tables used for analysis; such as excess stratification, requisition summary, weapon support effectiveness, etc.

4.2.1.3.4. Organization: Contains all organizational information; such as delivery destination, organization cost center, reporting organizational file identity, etc.

4.2.1.3.5. SRD/RID/I&SG: Contains all SRD, routing identifier, and interchangeable and substitute group data; such as interchangeable & substitute group stock number relationship, order & ship time by routing identifier, standard reporting designator consumption, etc.

4.2.1.3.6. Support: Contains all support type tables; such as system designator, exception phrases, cumulative reject suspense, etc.

4.2.1.3.7. System: Contains system type tables; such as base constants, special control, supply table counts, etc.

4.2.1.3.8. Transaction History: Contains all daily and consolidated transaction history information; such as daily transaction history, transaction summary, consolidated transaction history, etc.

4.2.1.4. What is a Folder? A folder is a collection of related items (data elements) within a business area. Folders are very similar to records in today's SBSS. They are created and defined in the End User Layer (EUL) using the Administration Edition.

4.2.1.5. Understanding Joins. Before a user can select data from different folders, a relationship must exist between those different data elements. These relationships are created in Discoverer with "Joins". A "Join" serves several purposes: 1) Brings or links different tables (Folders) together, 2) Provides relationship between different tables, 3) Logical pairing

of tables in a database on matching data in specific columns.

NOTE:

Order of table selection when creating a "Join" determines the "Master Table" and "Detail Table". First table selected is the Master; second table selected is the detail. It is very important to select the proper table as the Master & Detail to achieve desired results. For example, if you want to choose due-outs with due-ins, you would select the due-out table first to make it the "Master" and the due-in table second to make it the "Detail" table. If this is selected in the other order it would provide invalid records.

4.2.1.5.1. Discoverer uses two types of "Joins": 1) Inner (Natural) and 2) Outer.

4.2.1.5.1.1. Inner-Join is based on a one-to-one or one-to-many relationship. It retrieves all rows from one table and any matching rows from another table. When values in two tables match, they are combined and displayed as one row.

For example: Inner-Join between the requisition number on the due-out detail and the requisition number on the due-in detail will only return due-outs that have requisition numbers.

For example: Inner-Join between the stock number on the item record and the stock number on the supply point detail will return only those stock numbers that have a supply point detail assigned.

4.2.1.5.1.2. Outer-Join is based on a one-to-one, one-to-many, or one-to-none relationship. It retrieves all rows from one table and any matching rows from another table. When values in two tables match, they are combined and displayed as one row. It also displays all rows from one table even if the joined table does not have a matching value.

For example: Outer-Join between the requisition number on the due-out detail and the requisition number on the due-in detail will return due-outs that have requisition numbers and due-outs without requisition numbers.

For example: Outer-Join between the stock number on the item record and the stock number on the supply point detail will return all stock numbers, with or without a supply point detail assigned.

4.2.1.6. Understanding Workbooks and Worksheets. Think of a workbook as a three-ring-binder filled with specific data for reports. The workbook has pages, or worksheets, that contain data for different options of the report. For example, if the workbook is for **Exception Phrases,** different worksheets are the types of exception codes: **Excess, Issue, Requisition, and Shipment.**

4.3. Starting Discoverer. This chapter explains how to start Discovererthe following topics:

What is a Discoverer Connection?

About starting Discoverer.

About starting Discoverer for the first time.

How to start Discoverer using an existing connection.

How to exit Discoverer.

How to create a Discoverer connection.

How to edit a Discoverer connection.

How to delete a Discoverer connection.

When and Why do I need to change my password?

How do I change the password for a connection?

4.3.1. What is a Discoverer Connection? A Discoverer connection stores login details, enabling an easy connection to the application. Each connection stores the following information:

Database user name

Database name

Language

EUL

4.3.2. About starting Discoverer. To start Discoverer, you can use one of the following methods:

Table 4.1. Starting Discover.

To start Discoverer:	**Use this method when:**
Use an existing user-defined connection (known as a private connection) that you created yourself	You want to connect to Discoverer using login details that you previously saved
Create a new user-defined connection (known as a private connection)	You want to connect to Discoverer using a new login

4.3.3. About starting Discoverer for the first time. Depending on which Internet browser, you are using and how the base network is configured:

4.3.3.1. You might need to follow a one-time-only set up process (J-Initiator) when you start Discoverer for the first time. This process initializes the Discoverer program on your machine. Follow the on-screen instructions to complete the process.

4.3.3.2. You might see a dialog about security. This security dialog appears when Discoverer requests extra permissions to access the Discoverer server or local devices (e.g. printers). If you do not want to see the dialog every time you connect, select the option "Always trust content from Oracle Corporation." Click Yes (or OK or Grant depending on browser) to continue starting Discoverer.

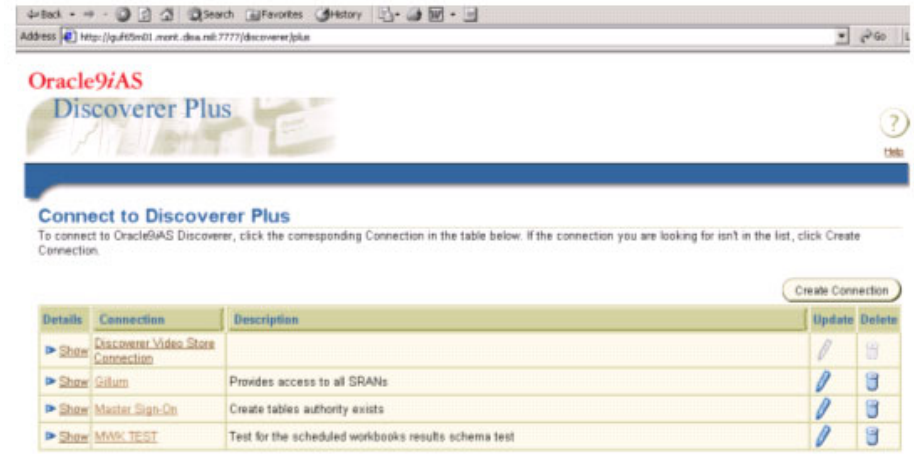
4.3.4. How to start Discoverer using an existing connection. When starting Discoverer, use the private connection that you previously created. To start Discoverer using an existing connection:

4.3.4.1. Launch a Web browser.

4.3.4.2. Enter Discoverer Uniform Resource Locator (URL). Connect to Discoverer Plus page

is displayed.

Figure 4.8. Discoverer Plus Connection Page.



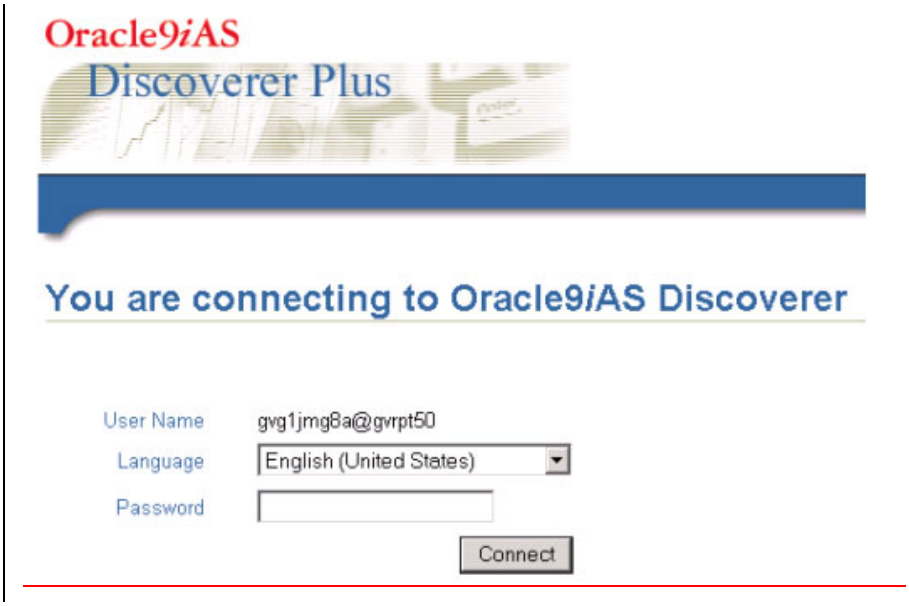
NOTE: A list of existing Discoverer connections is displayed in the Connection column.

4.3.4.3. Click the name of a connection in the **Connection** column to start Discoverer. Credentials page is then displayed.

NOTE:

To confirm that you are using the correct login, click Show in the Details column to display more information about a login. To hide additional information, click Hide.

Figure 4.9. User-ID & Password Page.



4.3.4.4. The User-ID (User Name) and Language are defaulted based on the connection you selected.

4.3.4.5. Enter your password and click **Connect**. Discoverer starts and displays the **Workbook Wizard, Step 1 of 10: Create/Open Workbook**.

4.3.4.6. Follow the steps in the Workbook Wizard to either open a workbook or create a new workbook.

4.3.5. How to exit Discoverer. When you have finished using Discoverer to analyze data, exit the application:

4.3.5.1. To exit Discoverer, choose **File/Exit**. If there are unsaved changes in one or more currently opened workbooks, a dialog prompts you to save or discard the changes.

4.3.5.1.1. Click Yes to save changes before closing Discoverer. Discoverer saves all changes that you have made since you last saved the workbook.

4.3.5.1.2. Click No to close Discoverer without saving changes. Discoverer saves none of the changes that you have made since you last saved the workbook.

NOTES:

a. If you started Discoverer from an Internet start page, the browser application is not closed.

b. If you shut down the web browser that you used to start Discoverer during a Discoverer session, Discoverer will also exit.

4.3.6. How to create and save login information in a Discoverer connection. Discoverer connections are used to save login information and serve as a shortcut when signing in. Login information is created and saved in what is called a “Private Connection”. A new private

connection is used when you want to start Discoverer using login details that have not been saved previously. To create and save login information in a Discoverer connection:

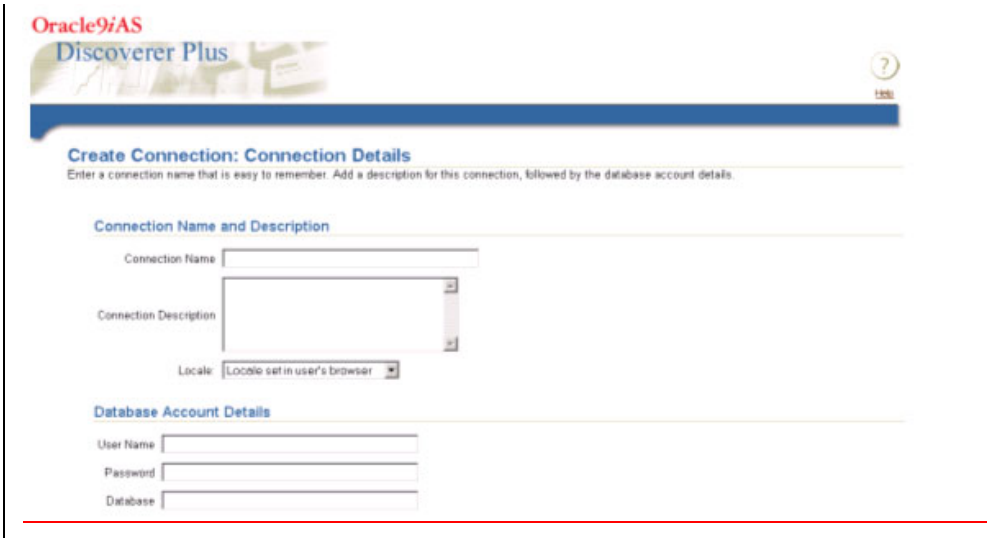
4.3.6.1. Launch a Web browser.

4.3.6.2. Enter Discoverer Uniform Resource Locator (URL)

4.3.6.3. Connect to Discoverer Plus page is displayed. A list of the existing Discoverer connections is displayed in the Connection column. Refer to **Figure** 2-1.

Click Create Connection to display the **Create Connection: Connection Details** page

Figure 4.10. Create Connection: Connection Details.



4.3.6.4. Enter a connection name by which you want to identify the new connection into the Connection Name field. The connection name is displayed in the Connections column on the Connect to Discoverer Plus page.

4.3.6.5. Enter a description of the connection in the Connection Description field (Optional). For example, you might want to add the names of the workbooks that the connection will be used to access.

4.3.6.6. Specify the user name, password, and database details for the connection that you want to create.

4.3.6.7. Click **Apply** to save the details entered.

4.3.6.8. The Connect to Discoverer Plus page is displayed. The new connection that you have created is included in the list of connections.

4.3.6.9. To connect to Discoverer using the connection that you have created, click the new connection name in the Connection list.

4.3.7. How do I edit a Discoverer connection? You edit a Discoverer connection when you

want to change the login details stored in that connection. For example, you might want to change the user name that you use to connect to Discoverer. To edit a Discoverer connection:

4.3.7.1. Launch a Web browser.

4.3.7.2. Enter URL for Discoverer. Connect to Discoverer Plus page is displayed. A list of the existing Discoverer connections is displayed in the Connection column.

4.3.7.3. Click the pencil icon in the **Update** column next to the name of the connection that you want to edit.

NOTE:

To confirm that you are using the correct connection, click **Show** in the Details column to display more information about a connection. To hide additional information, click **Hide**.

4.3.7.4. The Edit Connection page is displayed.

4.3.7.5. Change the connection details as required.

4.3.7.6. Click **Continue**.

4.3.7.7. Connect to Discoverer Plus page is displayed.

NOTE:

You can now use the updated connection to start Discoverer.

4.3.8. How do I delete a Discoverer connection? You delete a Discoverer connection when you want to remove login details permanently. For example, you might want to delete a temporary connection that you no longer need. To delete a Discoverer connection:

4.3.8.1. Launch a web browser.

4.3.8.2. Enter URL for Discoverer. Connect to Discoverer Plus page is displayed. A list of the existing Discoverer connections is displayed in the Connection column.

4.3.8.3. Click the trashcan icon in the **Delete** column next to the name of the connection that you want to delete.

4.3.8.4. Delete Confirmation dialog is displayed.

NOTE:

To confirm that you are using the correct connection, click **Show** in the Details column to display more information about a connection. To hide additional information, click **Hide**.

4.3.8.5. Click **Yes** to delete connection and return to the Connect to Discoverer Plus page.

4.3.9. When and Why do I need to change my password? Typically, you will have to change your password periodically to maintain data security. Your User Administrator specifies how long you can keep the same password before it expires. In other words, how long you can keep the password before you have to change it. You will know your password has expired if you start Discoverer and are prompted to enter a new password. When you connect to Discoverer, you will be notified that your password will expire in a specified number of days. If you do not change the password in this period, you are prompted to enter a new password when the password expires.

It is also important to change your password if you think that someone else has found out what the password is.

4.3.10. How do I change the password for a connection? You change the password for a connection when a password:

Has expired

Is about to expire

Has become known by another user

4.3.10.1. Launch a web browser.

4.3.10.2. Enter URL for Discoverer. Connect to Discoverer Plus page is displayed. A list of the existing Discoverer connections is displayed in the Connection column.

4.3.10.3. Click the **Update** icon next to the connection for which you want to change the password.

4.3.10.4. Click **Change Database Password**. Change Database Password screen is displayed.

In the **Current Password** field, enter the current database password for the current user name.

4.3.10.5. In the **New Password** field, enter a new database password for the current user name.

4.3.10.6. In the **Verify Password** field, re-enter the new database password for the current user name.

4.3.10.7. Click **Finish.** The Connect to Discoverer Plus page is displayed. You can now use the connection to start Discoverer.

NOTE:

If any of the password details that you entered were invalid, an error message is displayed with advice on which value to change.

4.4. What You See on the Screen. The following information explains how to use the various items on the screen while working with Discoverer Plus. The topics include:

The workbook window

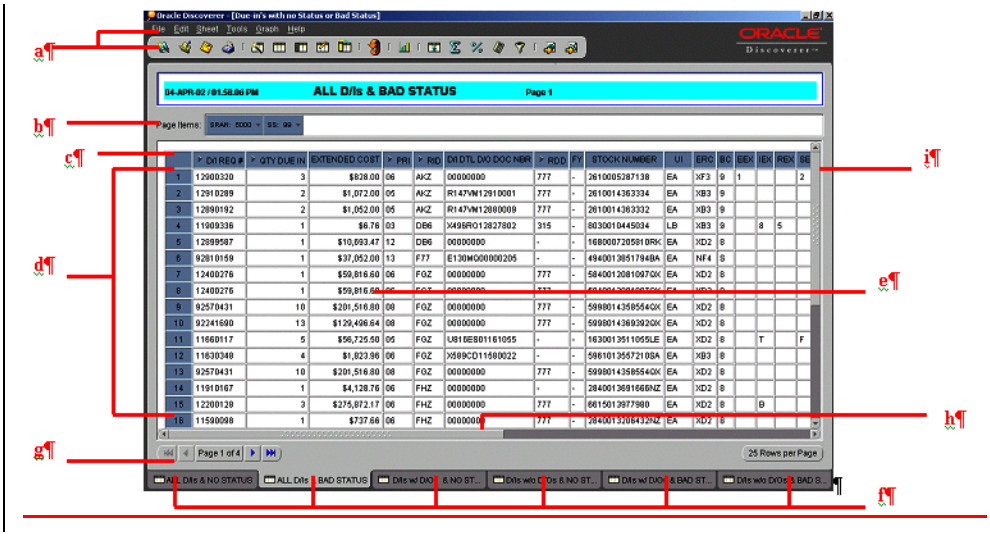
The four types of displays

Seeing the next page of data

Formatting a Worksheet

4.4.1. Workbook Window. The workbook window is where you will do most of your work with Discoverer Plus. It shows the data in the workbook.

Figure 4.11. Workbook Window.



NOTE:

Key to Figure:

Menu and Tool Bar

Page Axis

Top Axis

Left Axis

Data Points

Worksheet Tabs

Page Scroll Buttons

Page Scroll Bar (Horizontal)

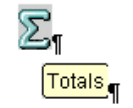
Page Scroll Bar (Vertical)

4.4.1.1. Menu and tool bar. Discoverer provides a standard menu and tool bar. Menu bar includes selections for common tasks such as printing, saving files, and getting “Help”. Tool bar includes shortcuts for your most common tasks. Much of Discoverer’s power is accessible from the menu bar. Each menu selection provides a dialog or Wizard to help you perform a task.

Clicking a button on either bar executes that button's function. Functions controlled by these buttons are also available from the menus.

Also, notice that when you put the cursor on a button, it enlarges and displays a small tool tip that tells you what the button is for. Text on the status bar shows a slightly expanded version of the explanation.

Figure 4.12. Tool Tips.



NOTE:

Key to Figure

When a pointer is on a button, the button enlarges and displays its tool tip, (Totals in this example).

4.4.1.2. Axis Items. Page axis, top axis, and left axis on the workbook window represent data that have a relatively few, discrete values associated with them.

Typical axis items are System Designator, Stock Record Account Number (SRAN), Activity Code, Type Account Code, Exception Code, ERRCD, etc. For example, usually Type Account Code has only a few values associated with it: B (Supplies), E (Equipment), P (Fuels), and K (Munitions).

Axis items represent data that you can pivot on a cross tab worksheet or that can be column headings on a table. Another way of thinking about axis items is that they are the items that would appear on the axes of a graph. When creating a new worksheet, identify the data that become axis items.

4.4.1.3. Data Points. Data points of a table or cross tab are the data in the "body" of the worksheet. Data points are the data that you want to use for analysis purposes or to see listed on a table. On a cross tab worksheet, the data is usually numerical, such as number of inventory discrepancies or extended value of requisitions by budget code.

4.4.1.4. Worksheet tabs. Click to open or view the various worksheets in the workbook. If previously opened the worksheet in the current session, it appears right away. If you haven't opened the worksheet yet, Discoverer queries the database and then displays it. These tabs can be renamed.

4.4.1.5. Page scroll buttons. Click to scroll through the worksheet pages in the workbook.

4.4.1.6. Page scroll bars. If the worksheet is larger than the screen, it extends off the edges of the screen. Click the scroll bars to see the rest of the worksheet.

4.4.2. Four types of display. Data can be displayed four different ways on the workbook window:

Table and Page-Detail Table

Cross tab and Page-Detail Cross tab

4.4.2.1. Table layout. Most familiar layout for data is a table, which lists data in rows and columns. Typical data for tables includes such layouts as a stock number list with all of its indicative data sorted by warehouse location or budget code, lists of DIFM details from various organizations, lists of due-outs with their corresponding due-in, and so on.

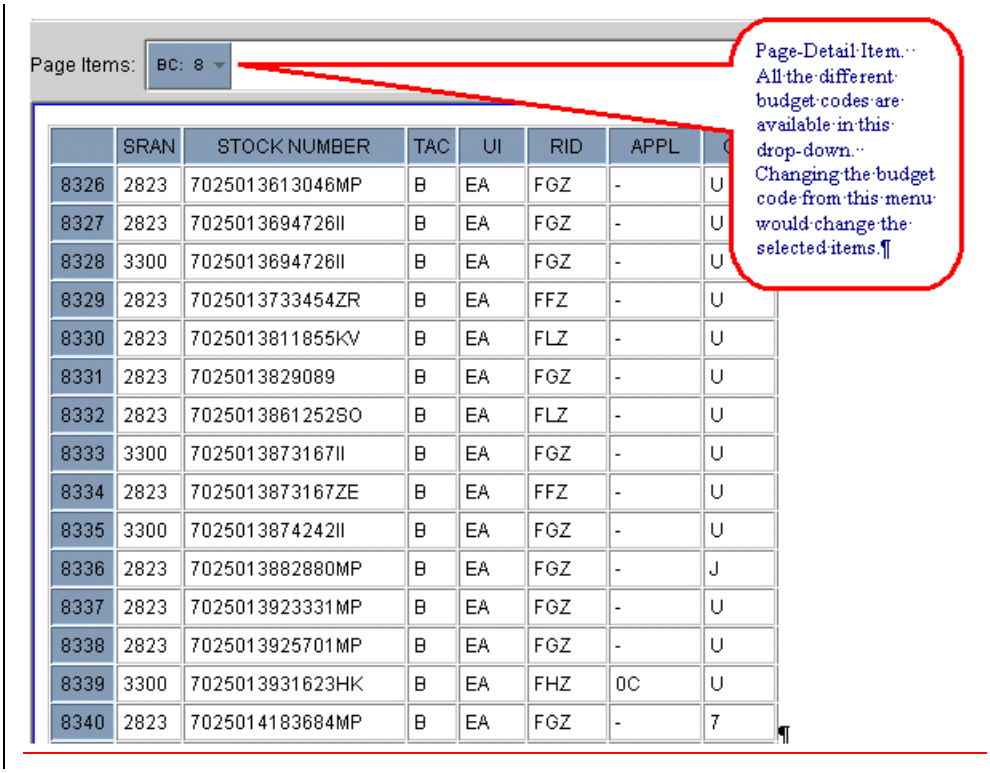
Here is a sample of a table layout on the workbook window. As you can see, it is essentially a listing of data.

Figure 4.13. Figure 2-3 Discoverer Table Layout

	STOCK NUMBER	UI	RID	APPL	CIC
1	5810000613386CS	EA	FPD	-	9
2	5810000613388CS	EA	FPD	-	9
3	5810001261943CS	EA	FPD	-	7
4	5810001279517CS	EA	FPD	-	7
5	5810001302038CS	EA	FPD	-	7
6	5810002337419CS	EA	FPD	-	7
7	5810002337420CS	EA	FPD	-	7
8	5810002565117CS	EA	FPD	-	7
9	5810004225538CS	EA	FPD	-	7
10	5810004490154CA	EA	FPD	-	9
11	5810010116311CS	EA	FPD	-	U
12	5810010116312CS	EA	FPD	-	U
13	5810010116313CS	EA	FPD	-	7
14	5810010172505CS	EA	FPD	-	7
15	5810010181165CS	EA	FPD	-	7

4.4.2.2. Table Layout with page Details. A table layout with page details is a table with multiple pages of data, where each page shows various portions of the data in detail. You set the criteria for displaying portions of data in order to see exactly what you want on each page. Usually this type of layout is used to study data details in a specific, recurring way. For example, in the example in figure 2.3 above, you may want to see the stock numbers by budget code. In this scenario, each page would show one budget code with all the corresponding stock numbers.

Figure 4.14. Discoverer Table Layout With Page Items.



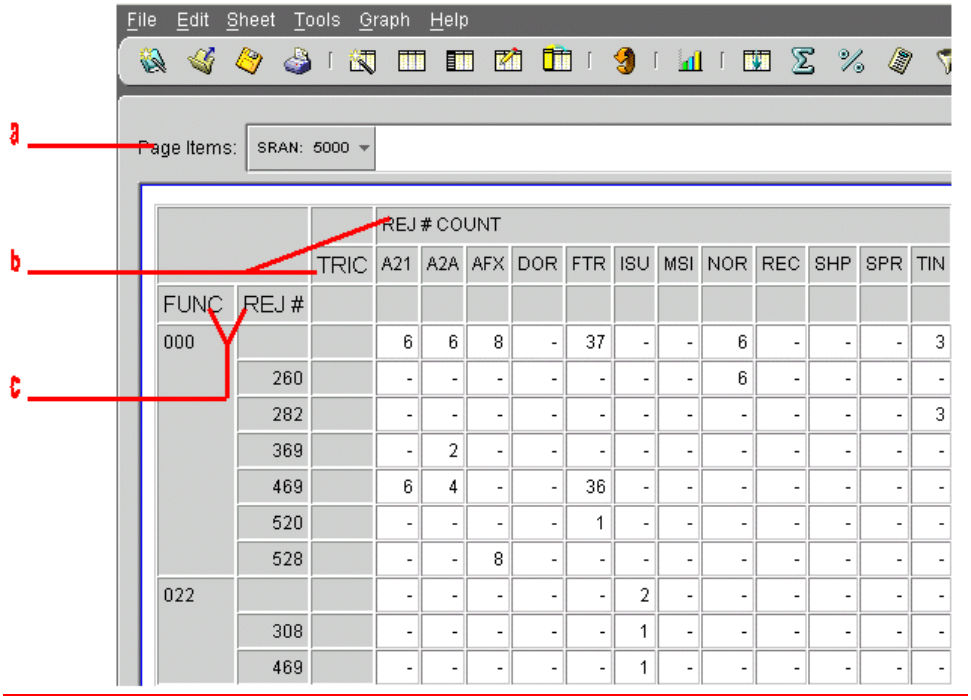
	SRAN	STOCK NUMBER	TAC	UI	RID	APPL	
8326	2823	7025013613046MP	B	EA	FGZ	-	U
8327	2823	7025013694726II	B	EA	FGZ	-	U
8328	3300	7025013694726II	B	EA	FGZ	-	U
8329	2823	7025013733454ZR	B	EA	FFZ	-	U
8330	2823	7025013811855KV	B	EA	FLZ	-	U
8331	2823	7025013829089	B	EA	FGZ	-	U
8332	2823	702501386125 2SO	B	EA	FLZ	-	U
8333	3300	7025013873167II	B	EA	FGZ	-	U
8334	2823	7025013873167ZE	B	EA	FFZ	-	U
8335	3300	7025013874242II	B	EA	FGZ	-	U
8336	2823	7025013882880MP	B	EA	FGZ	-	J
8337	2823	7025013923331MP	B	EA	FGZ	-	U
8338	2823	7025013925701MP	B	EA	FGZ	-	U
8339	3300	7025013931623HK	B	EA	FHZ	0C	U
8340	2823	7025014183684MP	B	EA	FGZ	-	7

4.4.2.3. Cross Tab Layout. A cross tab, short for "cross-tabulation," relates two different sets of data and summarizes their interrelationship in terms of a third set of data. For example, a typical cross tab might show the total number of a specific reject by function number. In other words, there are three sets of original data: reject number, function number, and count of each type reject for each function number. The reject number and function number are axes of the cross tab as rows and columns. Each row and column intersection shows the data points, in this case the total of a particular reject for a function number.

Every cross tab has at least three dimensions of data--rows, columns, and data points. However, in Discoverer, cross tabs can show the interrelationships between many dimensions of data on the various axes. A cross tab layout has three axes: side axis, top axis, and page axis. Because each axis can hold several data items, a cross tab can display many dimensions of data.

For example, the following figure is a sample cross tab that shows five dimensions of data: system designator, count of a type of reject, TRIC, function number, and reject number. In this example, the data points (that is, the intersections, or cells on the cross tab) are the count of a particular type reject. The next page of data would show the same type of data, except for the next system designator.

Figure 4.15. Cross Tab Layout With Page Items.



NOTE:

Key to Figure

a. Page axis. In this sample, it contains a single data item—Stock Record Account Number (SRAN).

b. Top axis. This top axis contains two data items—Reject # Count and TRIC.

c. Side axis. This side axis also contains two data items—Function Number and Reject Number.

4.4.2.4. Page detail cross tab layout. A page detail cross tab layout is a cross tab with multiple pages of data, so you can group the data on separate pages. You set the criteria for displaying portions of data in order to see exactly what you want on each page.

4.4.2.5. One of the most powerful features of cross tabs is that they can uncover subtleties in the data that are not readily apparent from a table of data or from the raw data itself.

NOTE:

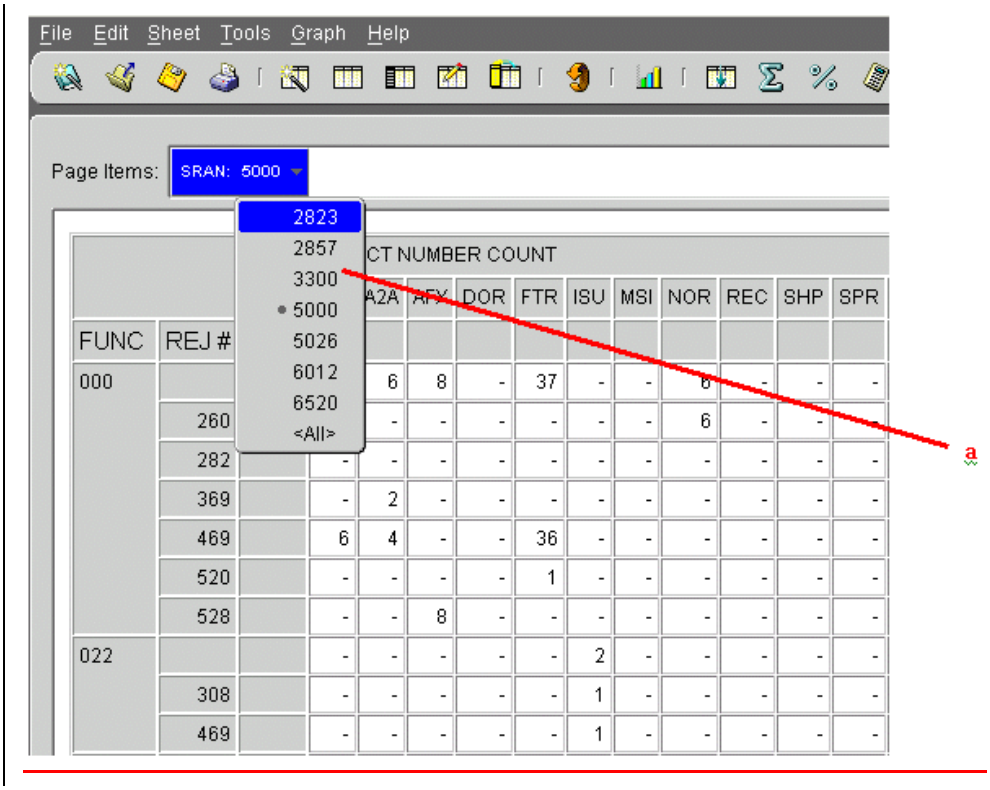
A word of caution: used incorrectly, cross tabs can show relationships between two sets of numbers when, in fact, there is no meaningful correlation between them at all. For example, it is a well-known observation that the rise and fall of stock prices on the New York Stock Exchange seems to correlate with the length of women's hemlines--miniskirts during booms, maxi skirts during recessions. The correlation seems to exist, but no one knows why. The same

can be true with cross tab numbers; a relationship seems to exist but it may not be valid. The point is simply this: you have to understand the correlation of the data before the cross tab relationships make sense.

4.4.3. Seeing Next Page of Data. When the page axis contains data, the table, or cross tab displays one page of data at a time. A page displays all of the data for a particular data item, such as the rejects for Stock Record Account Number (SRAN) 5000. **To see another page of data on a table or cross tab:**

4.4.3.1. Click the down arrow next to the data you want to see. See Figure 4.16. (figure 2-6)

Figure 4.16. Drop-Down List on Page Axis Items.



NOTE:

Key to Figure

a. Click the down arrow to select the next page of data for the particular data item. A drop-down list appears showing the pages available for that data item. A dot indicates the current page being displayed on the table or cross tab.

4.4.3.2. Select the page that you want to see next from the drop-down menu.

In the following figure, the page axis has two data items—Stock Record Account Number

(SRAN) and Excess Exception Code. The SRANS are 2823, 3300, and 5000; the Excess Exception Codes are 1, 3, 5, and A. Therefore, in combination, the Table has 9 pages of data:

SRAN – 2823, EEX – 1

SRAN – 2823, EEX - 3

SRAN – 2823, EEX – 5

SRAN – 2823, EEX – A

SRAN – 3300, EEX – A

SRAN – 5000, EEX – 1

SRAN – 5000, EEX – 3

SRAN – 5000, EEX – 5

SRAN – 5000, EEX – A

Figure 4.17. See Next Page of Data

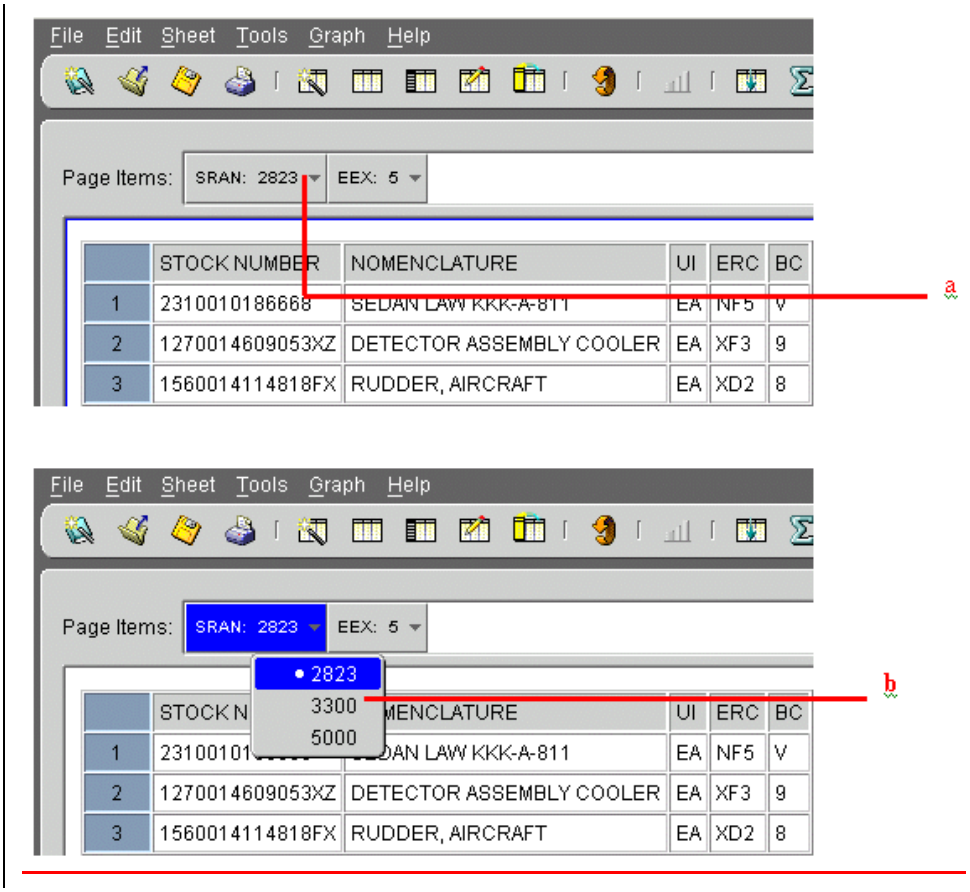
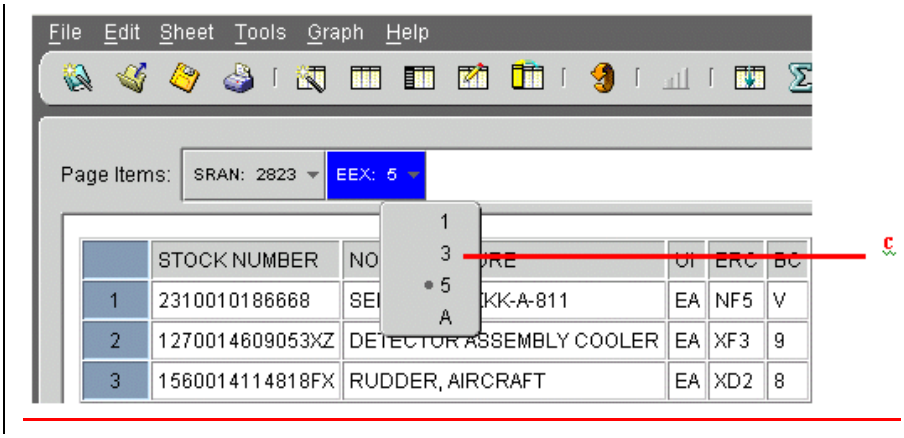


Figure 4.18. See Next page of Data.



NOTE:

Key to Figure

a. Looking at the page labels, you can see that this table shows data for Stock Record Account Number (SRAN) 2823 and Excess Exception Code (EEX) 5. To see data for other SRANs, click the down arrow in the SRAN item.

b. A drop-down list shows other items available, in this case the different SRANS. The dot next to 2823 indicates that the table currently displays the page for SRAN 2823 data. To view data for 3300 and 5000, select them from the list.

c. To see data for other Excess Exception Codes, click the down arrow in the EEX item. Then choose an EEX from the list.

4.4.4. Formatting a Worksheet. Part of a Discoverer Administrator's responsibility when designing pre-defined workbooks is to format each worksheet. Text fonts, background colors, column names, and so forth are all part of the default format set up by the Discoverer Administrator. However, you can reformat a worksheet. The following sections describe how to do this.

4.4.4.1. Workbook Wizard. Workbook Wizard provides the **Format Panel** to help you customize the way text, numbers, and dates appear in your worksheets. You can change font size, color, and alignment one column at a time or one row at a time. You can even select multiple items to format simultaneously.

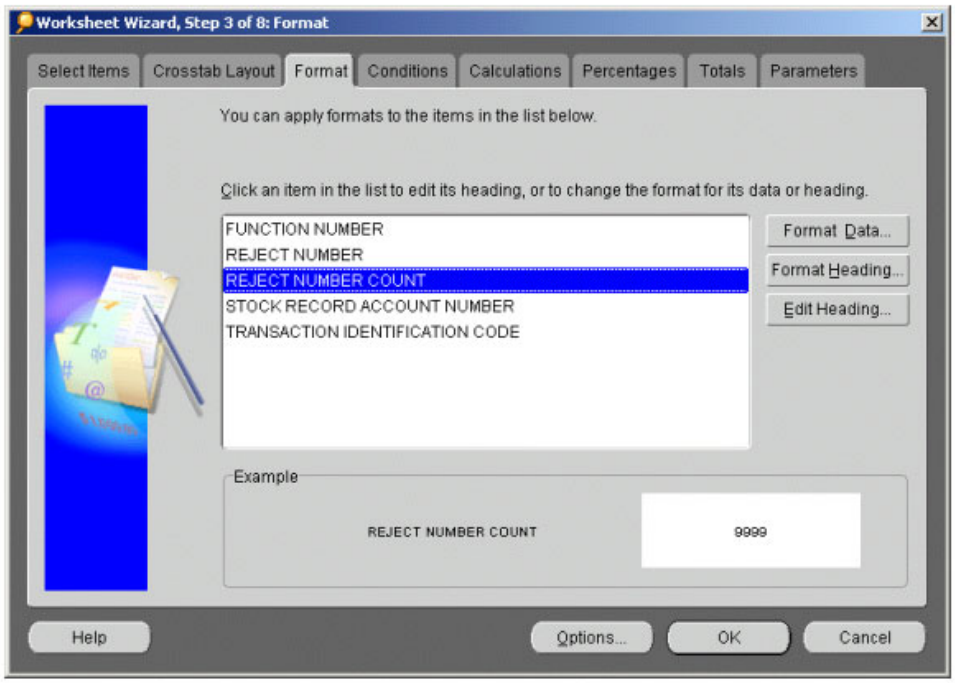
The formats you create using the **Format Panel** apply to one worksheet at a time.

4.4.4.1.1. Edit worksheet Data Format. To change the format of worksheet data:

1. With a workbook open, click on the tab for the worksheet that you want to format.

2. From the **Sheet** menu, choose **Format...** The **Format Panel** of the **Workbook Wizard** appears.

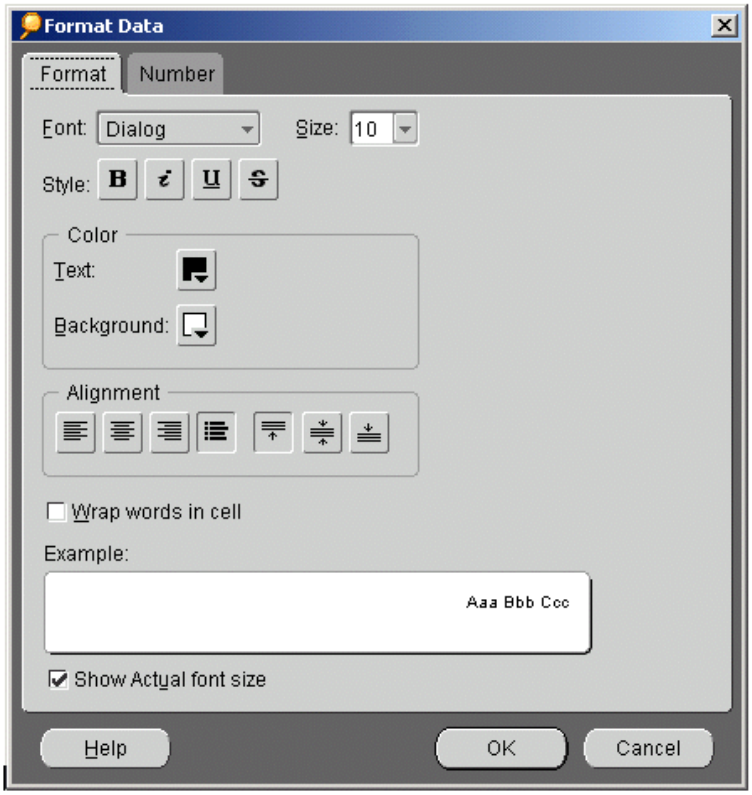
Figure 4.19. Workbook Wizard Format Panel.



3. In the list box on the left, click the items that you want to format. You can format one item at a time or format multiple items. The **Example** box shows you the item's current heading format.

4. Click the **Format Data** button to change the way worksheet data appears in cells, for example, to change the font size, color, and alignment of numbers. The **Format Data** dialog appears.

Figure 4.20. Format Data, With Number, Dialog Box.



5. In the **Format Data** dialog, do any of the following:

Click the **Size** drop-down menu to increase or decrease the font size for data.

Click one or more of the **Style** buttons to make your data **bold**, italic, underlined, or strike-through.

Click the icons next to **Text** and **Background** to choose their colors from a color palette.

Click one horizontal alignment button and one vertical alignment button to change the way data is aligned within worksheet cells.

Click the **Wrap words in cell** checkbox if you want long words to be visible inside a single cell.

Click the **Show Actual font size** checkbox if you want to preview your changes in the **Example** box using the font size as well as the other changes that you chose above.

6. Do one of the following:

If the item you are formatting contains numbers (for example, currency or percentages), you will also see a tab labeled **Number** on the **Format Data** dialog. Click the **Number** tab to

add or remove decimal places, to show or hide a currency symbol for your country, or to create a custom number format.

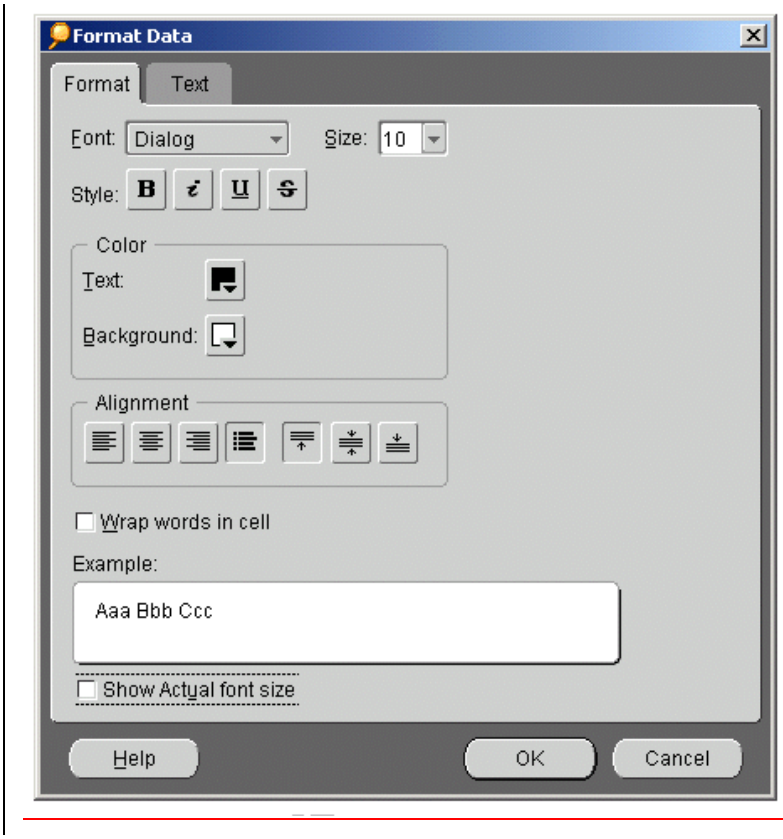
NOTE:

The currency symbol displayed is determined by the Country setting. To change the currency symbol, close Discoverer, then click the **Choose a Language** option at the Discoverer Start Page. Follow screen instructions for starting Discoverer, and choose a different Country setting.

If the item you are formatting contains dates (for example, Year or Quarter), you will also see a tab labeled **Date** on the **Format Data** dialog. Click the **Date** tab to change how dates appear in your worksheet.

If the item you are formatting contains text (for example, Excess Exception Code), you will also see a tab labeled **Text** on the **Format Data** dialog. Click the **Text** tab to change the text's capitalization to UPPERCASE, lowercase, or Capitalized.

Figure 4.21. Format Data with Text Dialog Box.



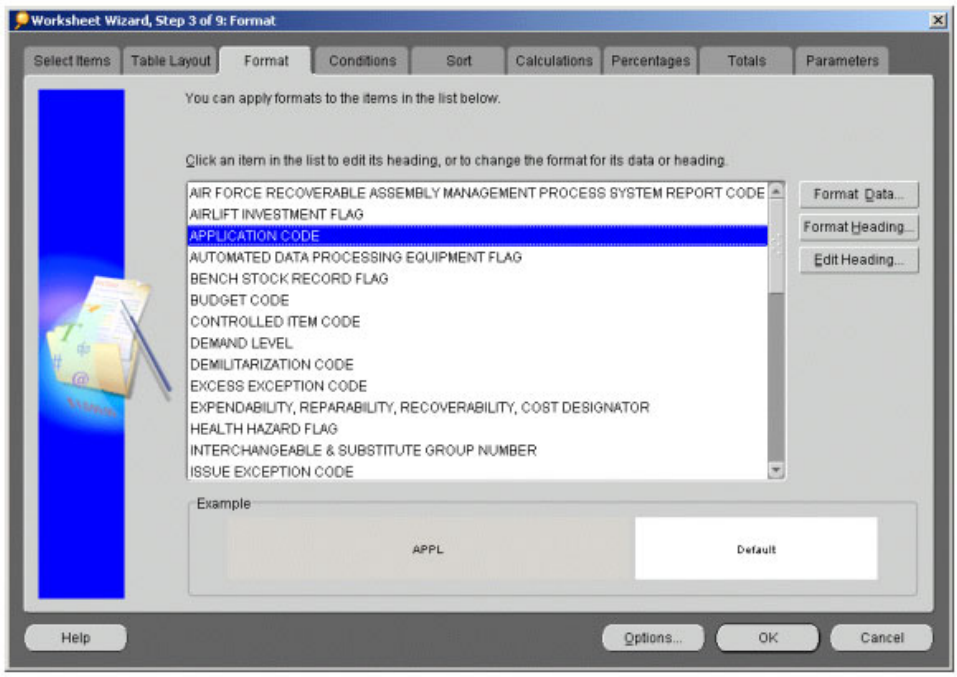
4.4.4.1.2. Edit Worksheet Column Format. To change the format of row and column

headings:

1. With a workbook open, click on the tab for the worksheet that you want to format.

2. From the **Sheet** menu, choose **Format...** The **Format Panel** of the **Workbook Wizard** appears.

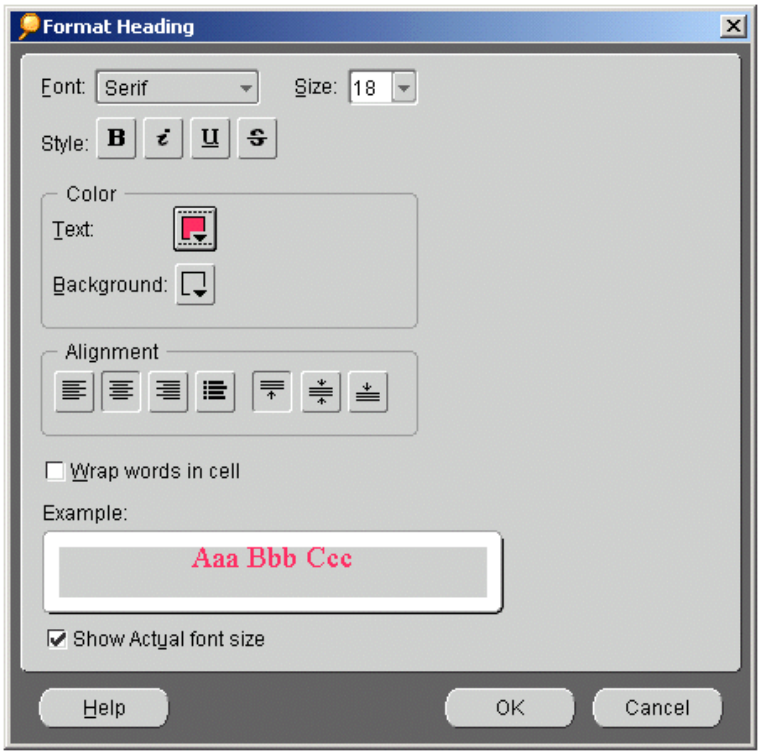
Figure 4.22. Workbook Wizard Format Panel.



3. In the list box on the left, click the item that you want to format. You can format the heading for one item at a time or format multiple headings. The text inside the **Example** box shows you the item's current heading formatting.

4. Click the **Format Heading** button to change the way row and column headings appear on the worksheet. For example, the change the font size, color, and alignment of headings. The **Format Heading** dialog box appears.

Figure 4.23. Format Heading Dialog box.



5. In the **Format Data** dialog, do any of the following:

Click the **Size** drop-down menu to increase or decrease the font size for data.

Click one or more of the **Style** buttons to make your data **bold**, italic, underlined, or strike-through.

Click the icons next to **Text** and **Background** to choose their colors from a color palette.

Click one horizontal alignment button and one vertical alignment button to change the way data is aligned within worksheet cells.

Click the **Wrap words in cell** checkbox if you want long words to be visible inside a single cell.

Click the **Show Actual font size** checkbox if you want to preview your changes in the **Example** box using the font size as well as the other changes that you chose above.

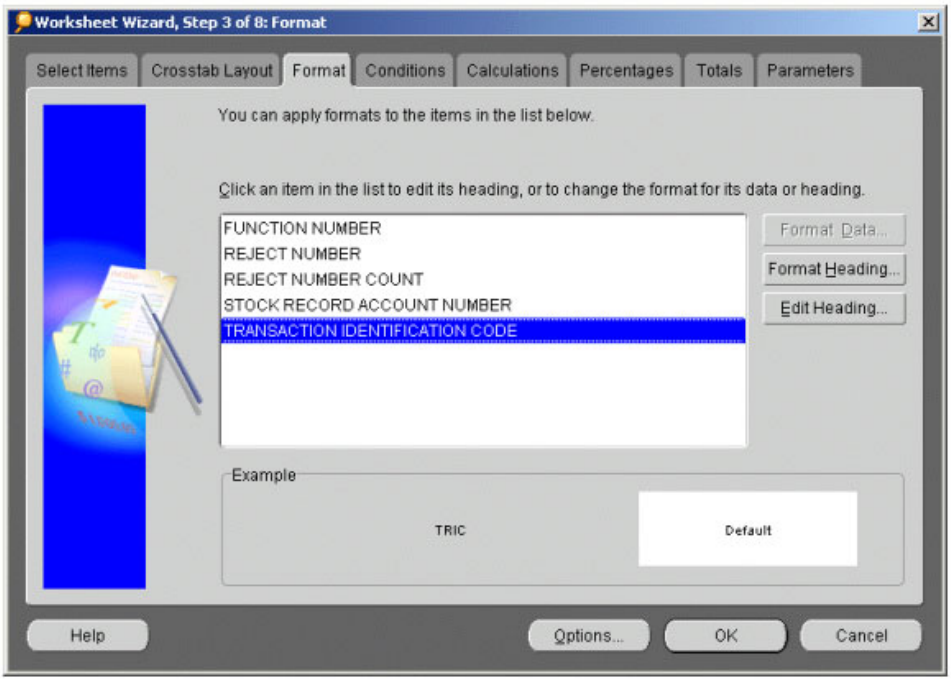
6. Preview your changes in the **Example** box, and then click **OK**. You return to the **Format Panel**, where you can also format row and column headings or change the way an item's name is displayed in a worksheet.

4.4.4.1.3. Edit Heading of a Column Heading. To change a heading's heading:

1. With a workbook open, click on the tab for the worksheet that you want to format.

2. From the **Sheet** menu, choose **Format...** The **Format Panel** of the **Workbook Wizard** appears.

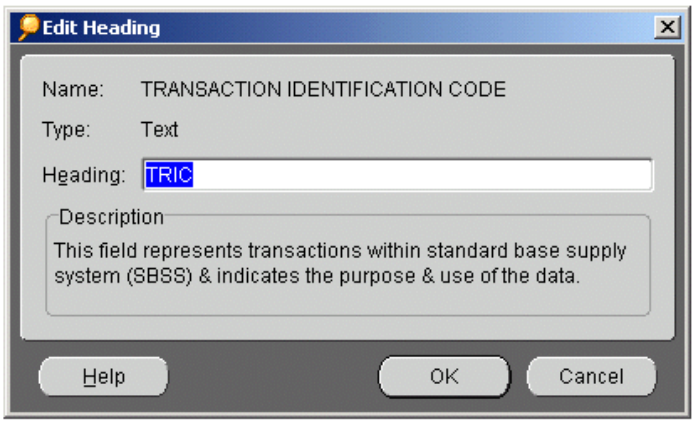
Figure 4.24. Workbook Wizard Format Panel.



3. In the list box on the left, click the item that you want to edit.

4. Click **Edit Heading…** button to change the way an item's name appears on the worksheet; for example, to change the heading **TRIC** to **TRIC Code**. The **Edit Heading** dialog appears.

Figure 4.25. Edit Heading Dialog Box.



5. In the **Heading** text box, type a new name for this item.

6. Click **OK**. You return to the **Format Panel**, where you can also format worksheet data and format row and column headings.

4.4.4.1.2. Renaming and Moving a Worksheet.

4.4.4.1.2.1. To Rename a Worksheet:

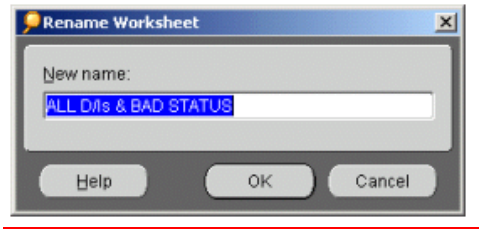
1. Open the workbook that contains the sheet you want to rename.
2. Do one of the following:

   Double-click the tab at the bottom of the worksheet you want to rename.

   From the menu, choose **Sheet | Rename Sheet**.

   The **Rename Worksheet** dialog box appears.

Figure 4.26. Rename Worksheet Dialog Box.



3. In the **New name:** text field, type the new name for the worksheet.

4. Click **OK**. The worksheet's new name appears on its tab, which is located on the bottom of the worksheet.

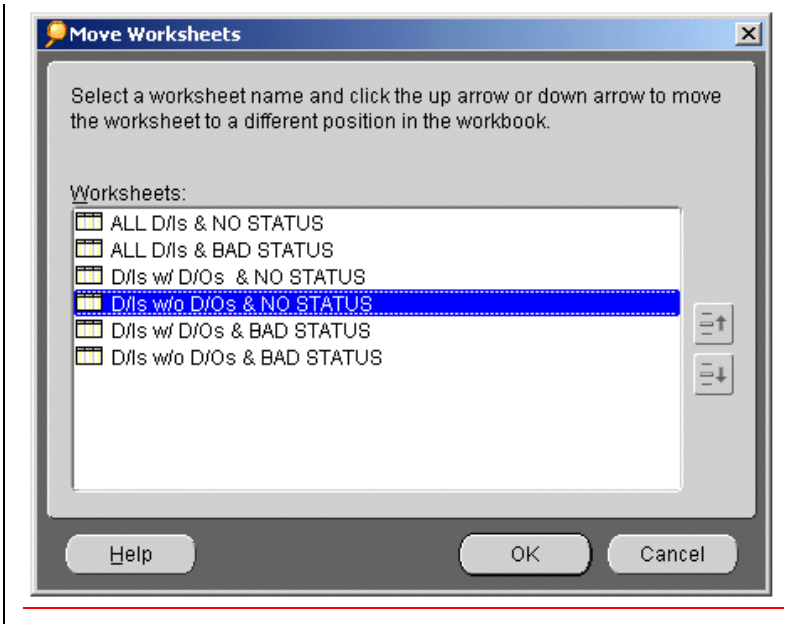
4.4.4.1.2.2. Move a Worksheet.

To re-order worksheets in a workbook:

1. Open the workbook that contains the worksheets you want to re-order.
2. From the menu, choose **Sheet | Move Sheet**.

   Move Worksheets dialog box appears.

Figure 4.27. Move Worksheets Dialog Box.



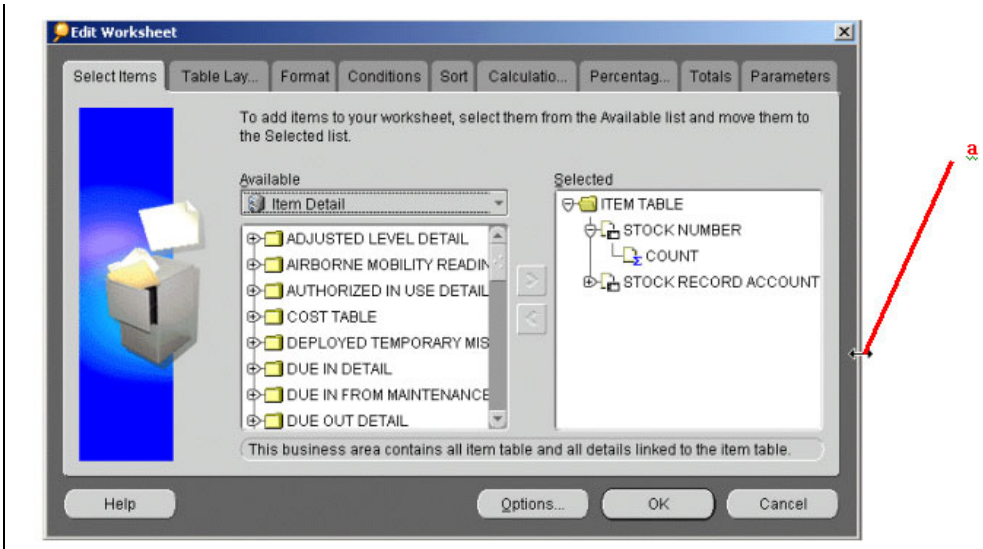
3. Click on the name of a worksheet and click the up arrow or down arrow. Worksheet moves up or down to a different position.
4. Repeat step 3 for every worksheet you want to re-order.
5. When you are finished, click **OK**.

4.4.4.1.3. Resizing Windows. Many of Discoverer's windows can be resized horizontally or vertically. You may find a more appropriate size better for your particular computer monitor.

To resize a window:

1. Put the pointer on an edge of the window.
2. Pointer becomes a horizontal or vertical arrow. In the Figure below, the pointer is a horizontal arrow, used to change the width of the dialog box.

Figure 4.28. Window Resize Arrow.



3. Drag the pointer to adjust the width of the dialog box.

When the pointer is on the side edge, drag it to the left or right. When the pointer is on the top or bottom edge, drag it up or down.

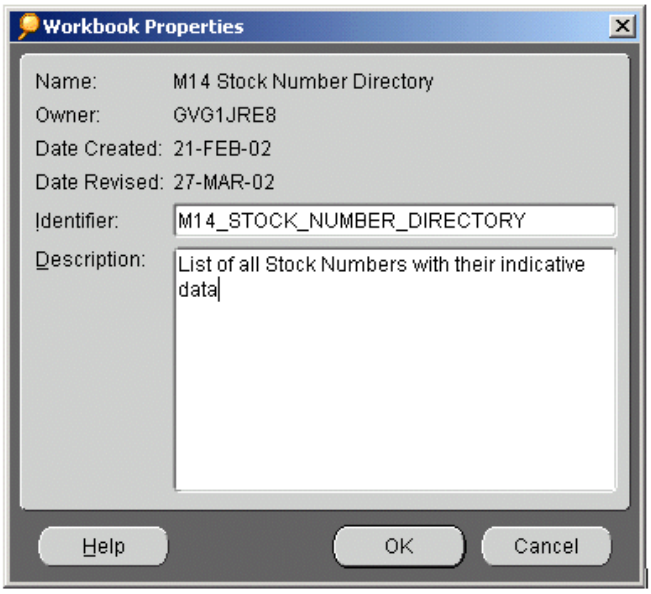
4.4.4.1.4. Looking at a Workbook's Properties. A workbook's properties provide basic information about the workbook.

To see a workbook's properties:

1. Open the workbook.
2. Choose **File | Manage Workbooks | Properties**.

Workbook Properties dialog box appears showing information about the Workbook. You can record additional information about the workbook in the **Description** box.

Figure 4.29. Workbook Properties Dialog Box.



4.5. Getting the Data You Want. Getting specific data--the data that you want to see--from report's database involves five basic steps:

1. Open the workbook that contains the data you want. If several workbooks exist, you open the one that contains the specific data you want.

2. As part of the process to open a workbook, select from choices, called **Parameters**, which define the precise data you want to see in the workbook. One Parameter might be the Stock Record Account Number (SRAN) of the base you want to query.

3. Reduce the amount of data by using Conditions. Conditions filter data and display only the data that meets the Conditions.

4. Create a new workbook, if necessary. If none of the workbooks meet your requirements, you can create a new one, customized for displaying exactly the right combination of data. To create a new workbook, you must have the appropriate database privileges.

5. Edit a workbook/worksheet, if necessary. Existing workbooks/worksheets may require modification in order to meet your needs.

4.5.1. Opening an Existing Workbook. Your Database Administrator usually supplies the various passwords and server access instructions to log on to Oracle Discoverer Plus and open a workbook. The following steps explain the basic process.

4.5.1.1. Connecting to the Oracle Reports Database.

To connect to the reports database:

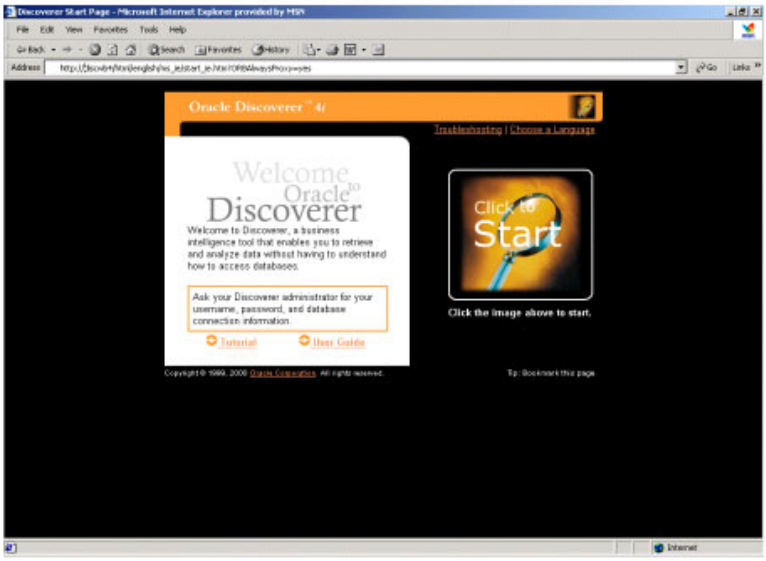
1. Launch your Web browser.

2. Go to the Discoverer Web site address.

3. You may also see a dialog about security. This security dialog appears because Discoverer requests extra permissions so it can access the Discoverer server or local devices, such as a printer. If you don't want to see this dialog every time you connect, click the option "Always trust content from Oracle Corporation." Click **Yes** (or **OK** or **Grant** depending on the type of dialog) to continue launching Discoverer.

Welcome page appears.

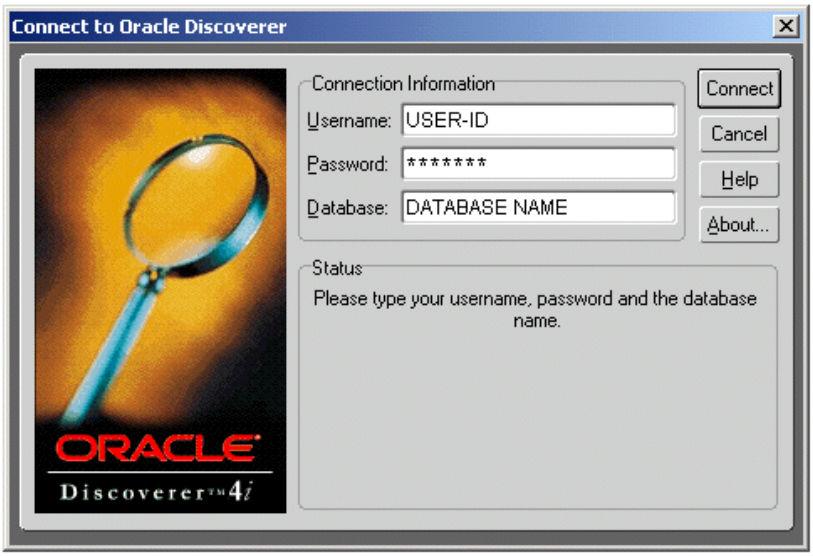
Figure 4.30. Welcome to Discoverer Page.



4. Click the **Click to Start** icon.

Connect to Oracle Discoverer dialog appears.

Figure 4.31. Connect to Oracle Discoverer



5. Your user name should already be in the **Username** box. If not enter it in the **Username** box.

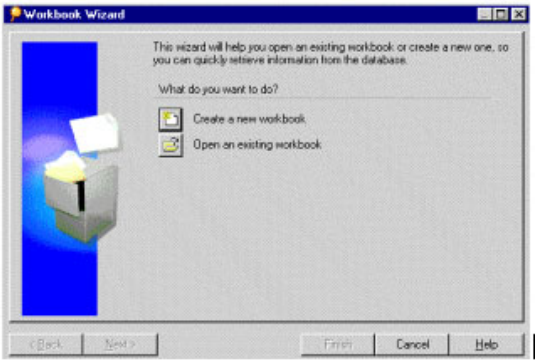
6. In the Password box, enter your password.

7. In the Connect box, enter the name of the database that you wish to use.
See your Database Administrator for password and database name details.

8. Click **Connect.**

The first screen of the Workbook Wizard appears. The wizard steps you through the process to get the specific data you want to see.

Figure 4.32. Workbook Wizard.



Create a new workbook--starts the process to create a new workbook. This option is not available if you don't have access rights granted by the Database Administrator.

Open an existing workbook--shows options for opening one of your existing workbooks.

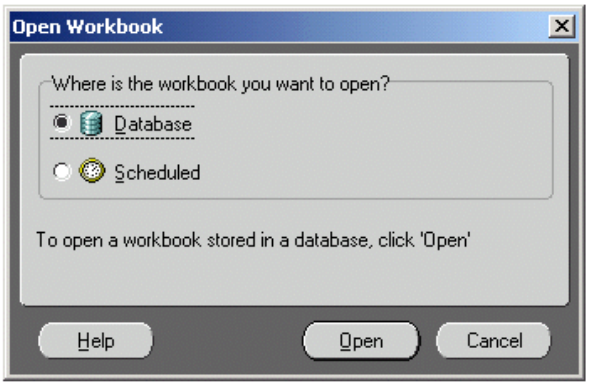
4.5.1.2. Opening a Workbook

To open a workbook:

1. Click **Open an existing workbook**.

The dialog then shows options for opening a workbook from the database or a scheduled workbook.

Figure 4.33. Open Workbook Dialog Box.

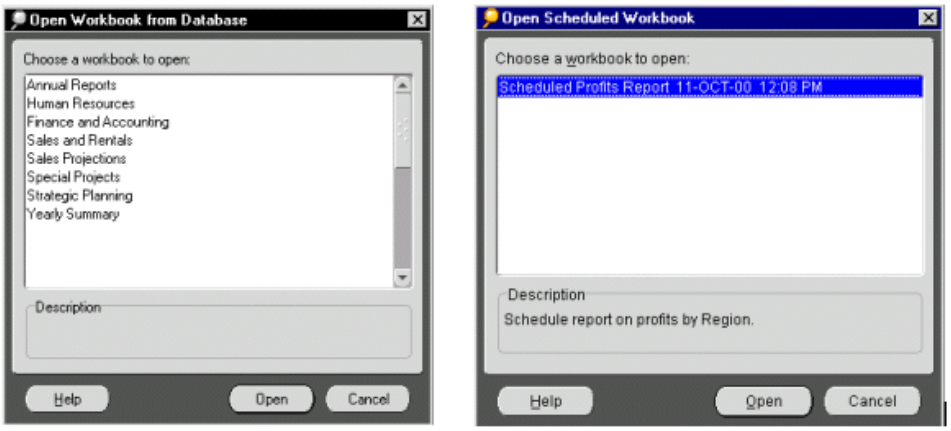


2. Choose one of the following:

Database--opens a dialog box for selecting a workbook stored as part of a specific database. The workbook can be shared easily with others who have access to the database.

Scheduled--displays a list of workbooks previously scheduled to run at a certain times (usually overnight, on a weekend, or at some periodic interval). Scheduled workbooks run automatically and are available when you need to open them.

Figure 4.34. Select a Workbook to Open.

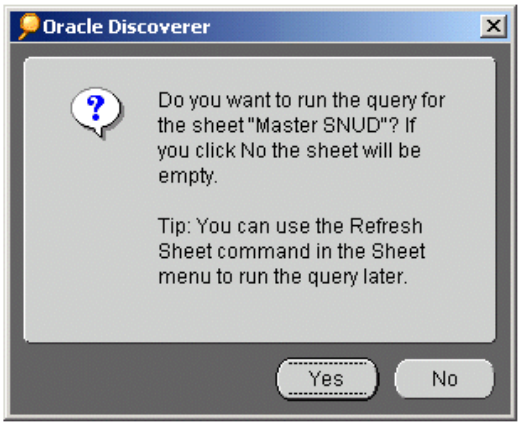


3. Depending on your selection, either a list of stored workbooks or a list of scheduled workbooks appears. Select a workbook that contains the data you want to see, and click **Open**.

The workbook opens. Discoverer evaluates the query to determine how much time it will take to open the first worksheet. Depending on the default options you've selected for opening worksheets, a progress dialog shows you the time estimate for loading the first sheet.

4. A dialog box asks if you want to run the query for the worksheet.

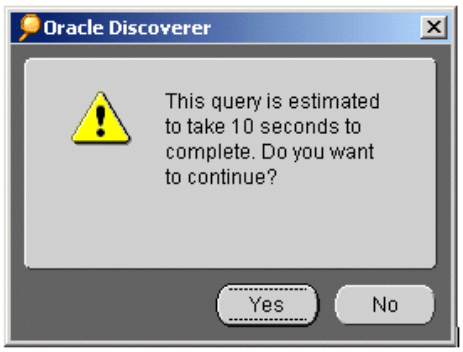
Figure 4.35. Run Query Confirmation.



A query causes Discoverer to find the most recent data to fill in the worksheet. Normally you click **Yes** because you want to see the most recent data associated with the sheet. Click **No** if you don't want to see the data in the worksheet. For example, click **No** if you want to create a new worksheet and don't need to see the data on the existing worksheet.

Discoverer now evaluates the query to determine how much time it will take to open the workbook and shows you an estimate. Click **Yes** to see the data.

Figure 4.36. Time Estimate.

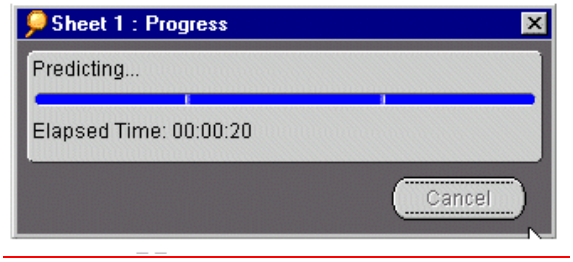


This dialog box is mainly for your convenience because, if the query time is more than a few minutes, you can be doing other work while Discoverer gets the data for the worksheet.

If you can't wait the estimated time, click **No**. Discoverer will remain open, but the worksheet will be empty.

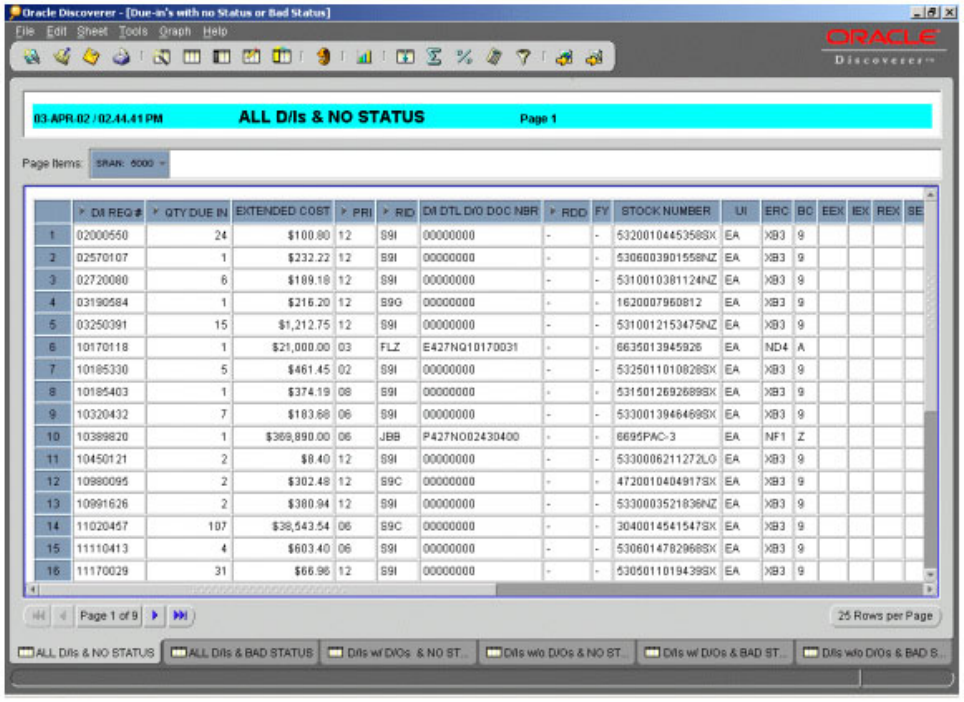
If you click **Yes**, a dialog box shows you the progress and elapsed time while Discoverer is finding the data.

Figure 4.37. Query Progress Indicator.



5. At the end of the process, your workbook appears. Here's a sample:

Figure 4.38. Discoverer Workbook.

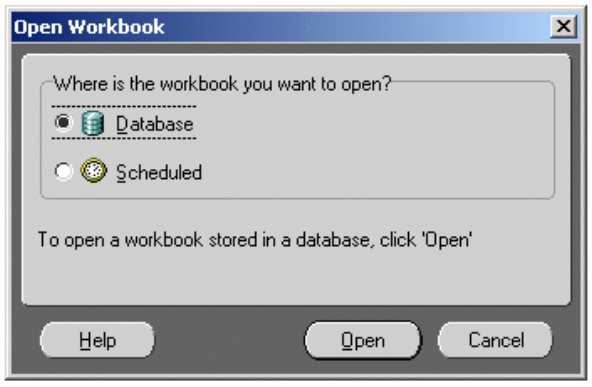


4.5.1.3. Opening Another Workbook.

To open another workbook:

1. From the menu, choose **File**, and then **Close** to close the current workbook.
2. Choose **File**, and then **Open**. The Open Workbook dialog appears.

Figure 4.39. Open Workbook Dialog Box.



NOTE:

Only one workbook at a time can be open. If you choose **File**, and then **Open** while a workbook is already open, the current workbook closes automatically.

4.5.1.4. Viewing Scheduled Workbooks. Scheduled workbooks run at a specified time. For example, you might want to automatically run the Stock Number Directory (M14) at the end of each month, or run a workbook every week based on the number of special inventories.

Often, workbooks that you want to schedule are designed specifically for that purpose, rather than for your day-to-day analysis. For example, the workbook might include special Calculations or Conditions that produce the results you want on a periodic basis only.

Discoverer Administrator must provide appropriate privileges to schedule a workbook.

Typically you schedule workbooks if:

The workbook will take a long time to run; scheduling a workbook to run at night or on the weekend avoids overburdening the server during business hours.

You want to run a workbook at regular intervals, such as a monthly M14.

Because a scheduled report runs on the server, you do not need to leave your computer on overnight (or whenever you schedule the report to run). The results of the scheduled report are saved on the server and are available when you connect to the database and start Discoverer.

A scheduled workbook produces a worksheet or set of worksheets with the results derived from running the workbook. You can open a scheduled workbook when you start Discoverer, or while working in a workbook. If you run a scheduled workbook overnight (or over the weekend) and want to see the results first thing the next morning, open the workbook as you connect to Discoverer.

To open a scheduled workbook:

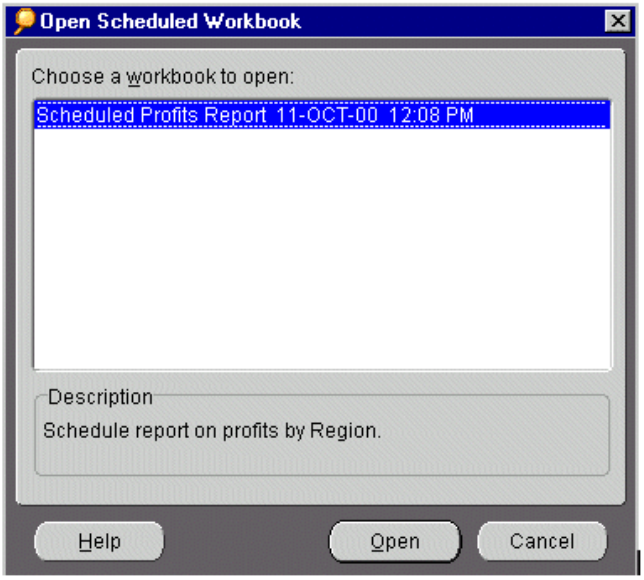
Do one of the following:

Connect to the database and launch Discoverer as described in section, “Open an Existing Workbook”.

If you are already connected to the database, from the menus choose **File**, and then **Open**. The Open Workbook dialog appears.

Click **Scheduled**, and then **Open**. The dialog lists the scheduled workbooks.

Figure 4.40. Open Scheduled Workbook Dialog Box.



Select the scheduled workbook you want to see and click **Open**.

NOTE:

The worksheets produced by running the scheduled workbook contain data derived specifically for that report and you can work with the worksheet in the normal manner. However, if you change any of the data, a message reminds you that the new data on the worksheet is not the same as that derived from the scheduled workbook.

4.5.2. Parameters. Databases often contain enormous amounts of information, and one key task necessary to work with a database efficiently is to find the specific information you want to see or analyze. Discoverer has a number of ways to filter out the data that you don't need to see and to find the specific data you want. Discoverer has filtering techniques both when you open a workbook initially and as you are working with the data. One way to filter out unnecessary data and find the specific information you want when opening a workbook is to select and apply **Parameters**.

4.5.2.1. Parameters offer predefined choices of data when you open a workbook. For example, suppose you are located at a Regional Support Squadron (RSS) with access to data from several accounts. You are opening the Stock Number Directory (M14) workbook, but you only want to see data from Barksdale AFB. If one of the Parameters is "SRAN," you choose the SRAN for Barksdale as data values for that Parameter. When the workbook opens it shows data from only that base--exactly what you want to see. Without the Parameter, the workbook opens with data from all the bases with which you have access.

4.5.2.2. Parameters actually use “Condition” statements to find specific data. However, unlike regular **Conditions** that find the same data each time they're applied, Parameters offer choices at the time the worksheet opens. For example, if the two Parameters for a worksheet are

SRAN and Type Account Code, the underlying Condition statement is "Find all the data about <SRAN> for a <Type Account Code>". The two Parameters are essentially placeholders in the Condition statement until the person opening the worksheet picks a data value for each one. Then, Discoverer finds all the data based on the selected values. Users are required to make an entry for each parameter prior to running the query.

4.5.2.3. Although similar, **Parameters** and **Conditions** are designed for different purposes. **Parameters** offer you a choice and help you open a workbook quickly to see just the data that you want to see. **Conditions** are specific, fixed statements. **Conditions** are designed more for analysis so you can apply Condition statements while you are involved with data analysis to find very specific sets of data. However, Conditions and Parameters can also be used with each other for more sophisticated filtering procedures. The main benefits of using Parameters are:

4.5.2.3.1. Specific data to see on a worksheet can be chosen.

4.5.2.3.2. Worksheets open more quickly, because amount of data on a worksheet is limited by the choices offered by the Parameter.

4.5.2.3.3. If several people are using a worksheet, each person can open the worksheet and get just the data of interest to themselves.

4.5.3. Discoverer users often create Parameters when creating the initial workbook. However, anyone with the proper access rights (granted by the Discoverer Administrator) can create Parameters too. The term data values refer to the choices offered when creating or choosing Parameters. For example, if the Parameter is for choosing base(s) for which you want to see data, the SRAN(s) are the data values, that is, 3300, 4800, 5000, etc.

4.5.3.1. Choosing Data Values for a Parameter When a Workbook Opens. When opening a worksheet with pre-defined Parameters, a dialog lists the Parameters so you can select the ones you want on the worksheet.

NOTE:

Although choosing a data value for a Parameter limits the data initially displayed on the worksheet--for example, you limit the data to “XB3” items only--Parameters do not limit the data available for the worksheet as you are working with it. You can always add any additional data as you are working on the worksheet. In addition, you can change Parameter values every time the query is refreshed, and you can edit Parameter values from the menu.

Depending on the design of the Parameters, you can choose:

4.5.3.1.1. Data value for a single Parameter.

4.5.3.1.2. Multiple data values for a single Parameter.

4.5.3.1.3. Data values for multiple Parameters.

4.5.3.2. To choose a data value for a Parameter:

1. Open a worksheet. If Parameters are defined for the worksheet, a dialog lists the available Parameters.

2. Choose a data value for the Parameter by doing one of the following:

   The worksheet appears and contains data only for the values you chose. In the example

below, the Parameter value of SRAN =“2823” is selected. The resulting worksheet contains data only for Eglin.

Figure 4.41. Example of Query Using Parameter Values.

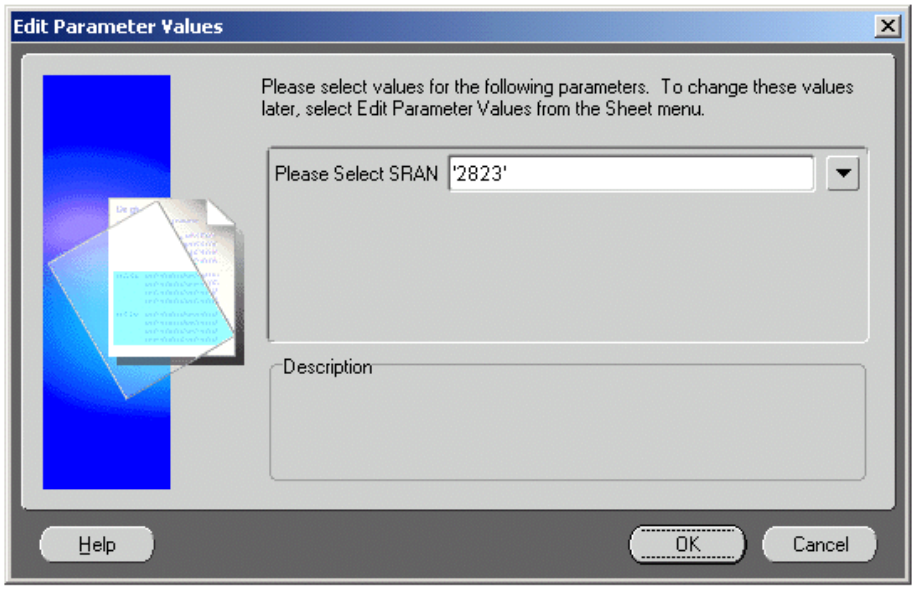
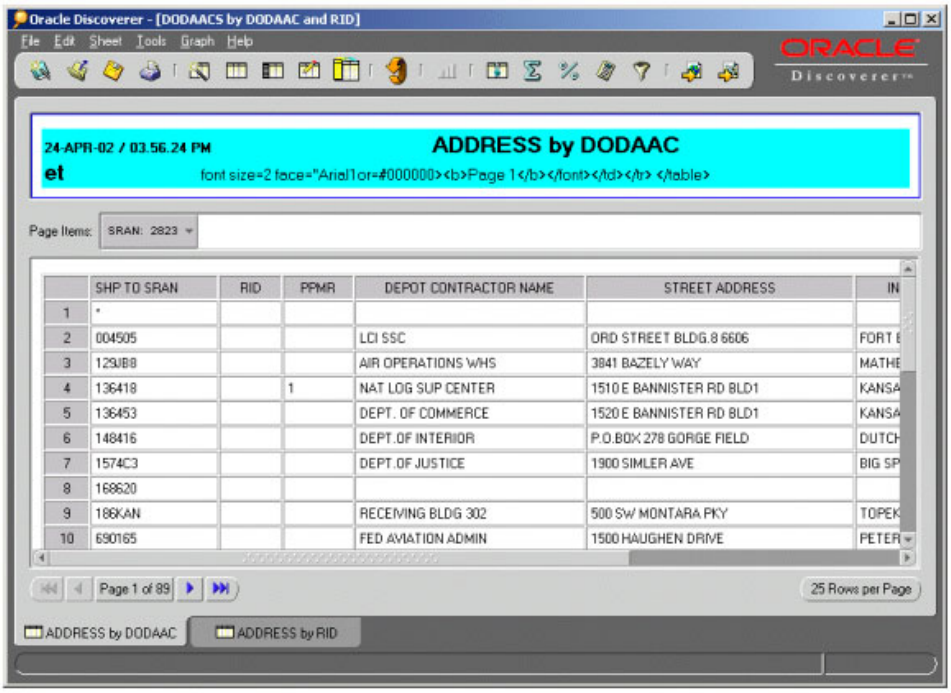
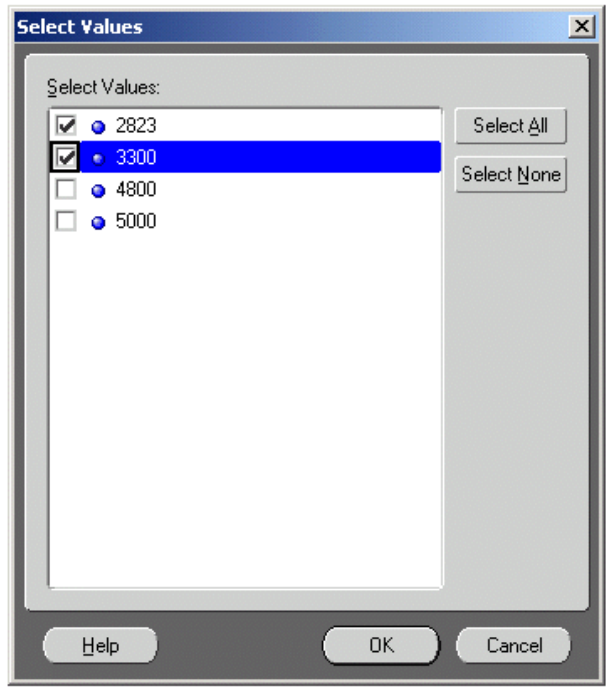


Figure 4.42. Example of Query Using Parameter Values.



3. If the Parameter is set up to allow for multiple data values, you can select several data values when opening the worksheet. This type of Parameter selection offers complete flexibility to choose the exact combination of data to see. From the **Edit Parameter Values** dialog, click the drop down arrow and choose **Select Multiple Values**. The Values dialog appears.

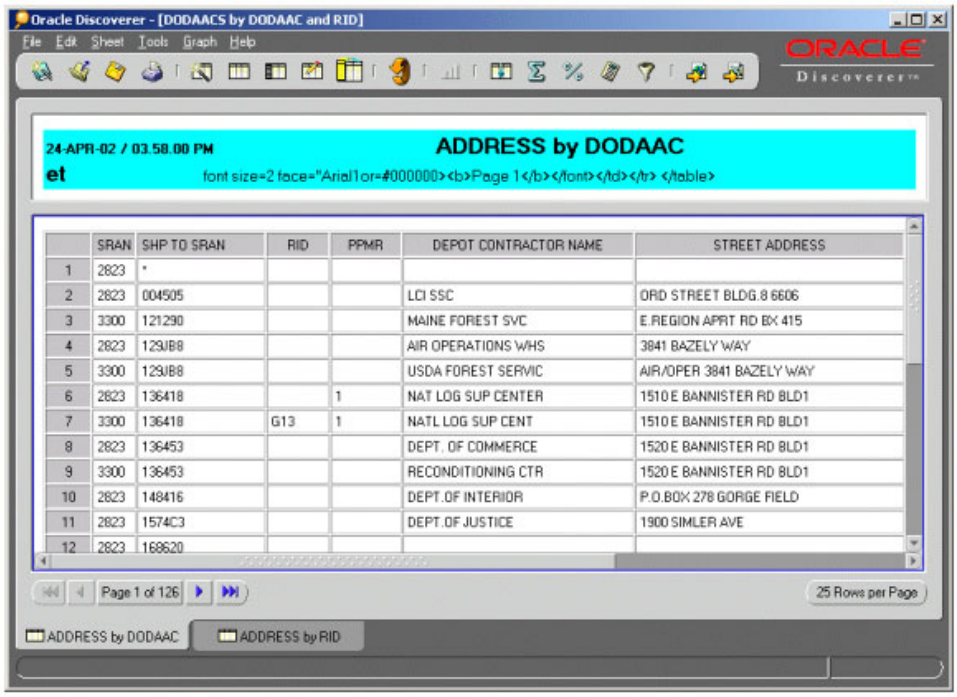
Figure 4.43. Select Values Dialog Box.



4. In the Select Values list, select the check box (es) next to the Items that you want to see in your Worksheet. To see all Items, click **Select All**.

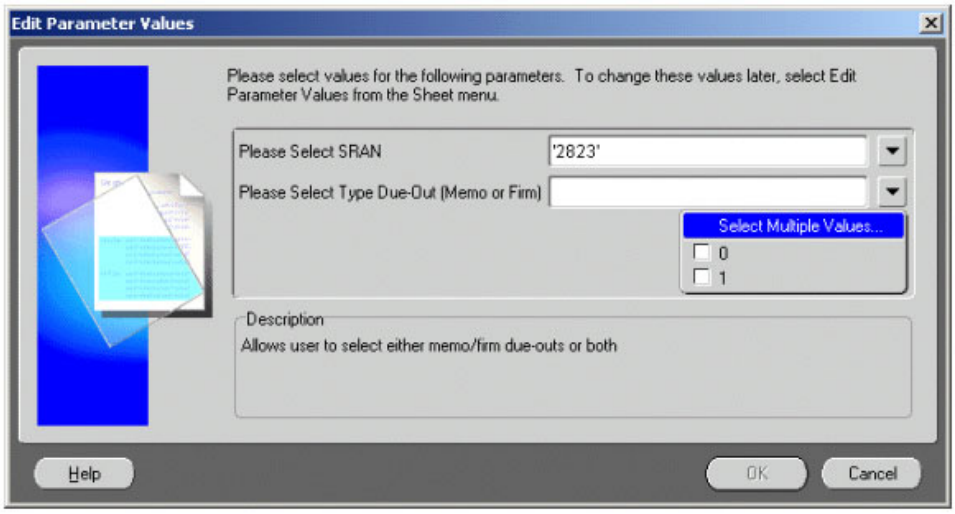
5. Click **OK** on the Values dialog and then click **OK** on the Parameters dialog. The worksheet is refreshed to display only data from the Items selected.

Figure 4.44. Another Example of Query Using Parameter Values.



6. If the workbook has multiple Parameters defined, click the drop down arrow next to each Parameter and select a data value for each one. Following example shows two Parameters--one for bases and the other for type due out--so you can select a combination of data to see.

Figure 4.45. Edit Parameter Values Dialog Box with Two Parameters.



4.5.3.2. Create and edit parameters. Because Parameters use Condition statements to find specific data, creating a Parameter is similar to creating a simple Condition statement. You specify the data item to use for the Parameter, for example, the list of SRANs in the database, and then specify the choices available for that Parameter.

In addition to creating Parameters, you can edit them to change their default values, descriptions, or headings. For example, if you find the majority of your work is with a particular base, you may want to edit the Parameter so that SRAN XXXX is the default value for the SRAN Parameter.

You can create Parameters at two levels:

1. Workbook level - Here, the Parameter applies to all worksheets in your workbook. Changes to the Parameter in any worksheet cascade to all worksheets in the workbook.

2. Worksheet level - Here, the Parameter applies to the current worksheet only.

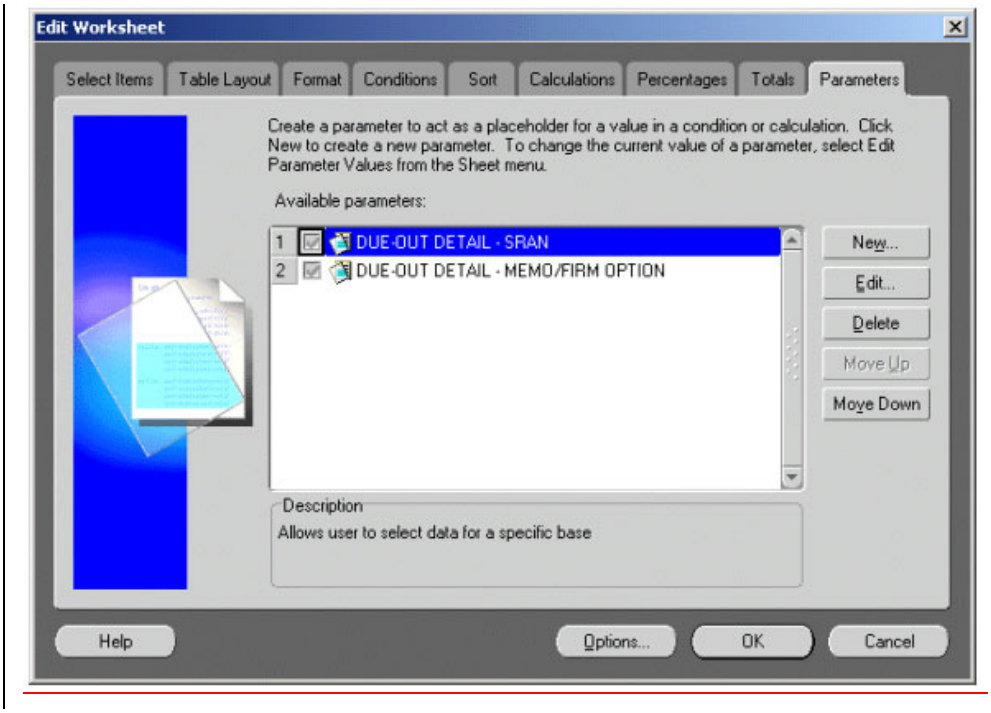
4.5.3.2.1. Create a Parameter.

To create a new Parameter:

1. Display the worksheet to which you want to apply the Parameter.

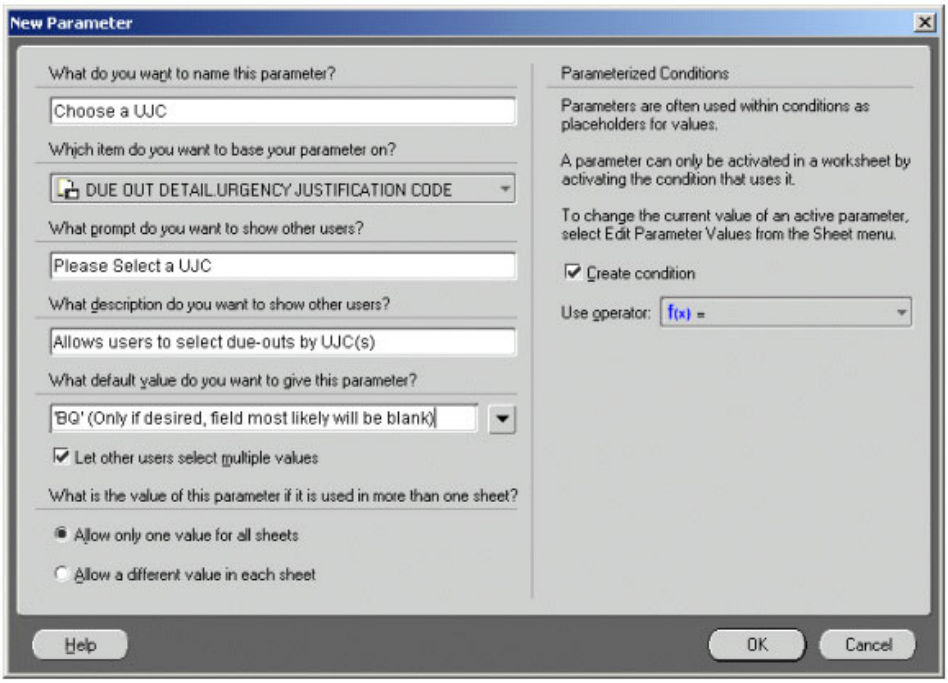
2. From the menu, choose **Tools | Parameters**. The **Edit Worksheet** dialog opens with the **Parameters** tab highlighted.

Figure 4.46. Edit worksheet with Parameters Tab Highlighted.



3. Click **New**. The **New Parameter** dialog box appears.

Figure 4.47. New Parameter Dialog Box.



4. Type in or select the features of the Parameter.

What do you want to name this Parameter? -- Type the name that you want to appear in the Parameters dialog. If you don't type a name, Discoverer inserts a default Parameter name.

Which item do you want to base your Parameter on? -- Select the data item for the Parameter from the drop down list. For example, to create a Parameter for selecting a UJC, select the data item that contains the UJCs. The list shows the data items currently used in the worksheet. It also shows all items related to the items selected in the worksheet and all calculations.

What prompt do you want to show to other users? -- This text appears in the dialog that appears prior to opening the worksheet; type text that prompts the user to make a selection.

What description do you want to show to other users? -- This text also appears in the dialog; it explains the Parameter.

What default value do you want to give this Parameter? -- This is the pre-selected data value for the Parameter. Click the drop down arrow and select a data value from the list, or type the default value directly into the box. It is likely this box will be left blank.

Let other users select multiple values -- Select this option if you want the person using the worksheet to be able to select multiple data values for the Parameter when opening the worksheet. If this option is not selected, the person can choose only one value for the

Parameter.

What is the value of this parameter if it is used in more than one sheet? -- Allows you to create the Parameter either at Workbook level or Worksheet level. Click **'Allow only one value for all Sheets'** to make the parameter value cascade across all worksheets in the workbook. Click **'Allow a different value in each Sheet'** to make the parameter value apply to the current worksheet only.

Parameterized Conditions refer to Condition statements that use a Parameter in their formulas. For example, if the Condition statement uses UJC in its formula, and you select 'BQ' as the data value for the Parameter, the Condition statement uses BQ as the UJC in the formula.

Create Condition/use operator--creates a Condition with an operator. You can select the operator from the drop list. For example, select equals (=) to create a Condition with the formula "For Item" = "Parameter's Name." A typical use of this feature is to find data values greater then (>) or less than (<) a data value. For example, to find all the data after the year 1997 the Condition formula is "Year" > 1997. The worksheet then appears with data from 1998 on.

NOTE:

If you are creating a Parameter as part of a Condition, the portion of the dialog for creating Parameterized Conditions is not available because you are already defining a Condition.

5. Click **OK**. The new Parameter now appears in the Parameters dialog box.

Moving the Parameters up and down in the Parameters dialog changes their position in the dialog that appears when opening a worksheet.

6. Click **OK** in the Edit Worksheet Parameters dialog box.

The Edit Parameter Values dialog appears, and you can specify the data value. The worksheet now displays the specific result for the data specified in the Edit Parameters dialog.

Parameters that are part of an active Condition are automatically activated as well. If you select the option **Create Condition/use operator** in the New Parameter dialog, a new Condition is created and activated; therefore, the Parameter is also activated.

To deactivate a Parameter, deactivate the Condition. Deleting the Condition deletes the Parameter and vice versa.

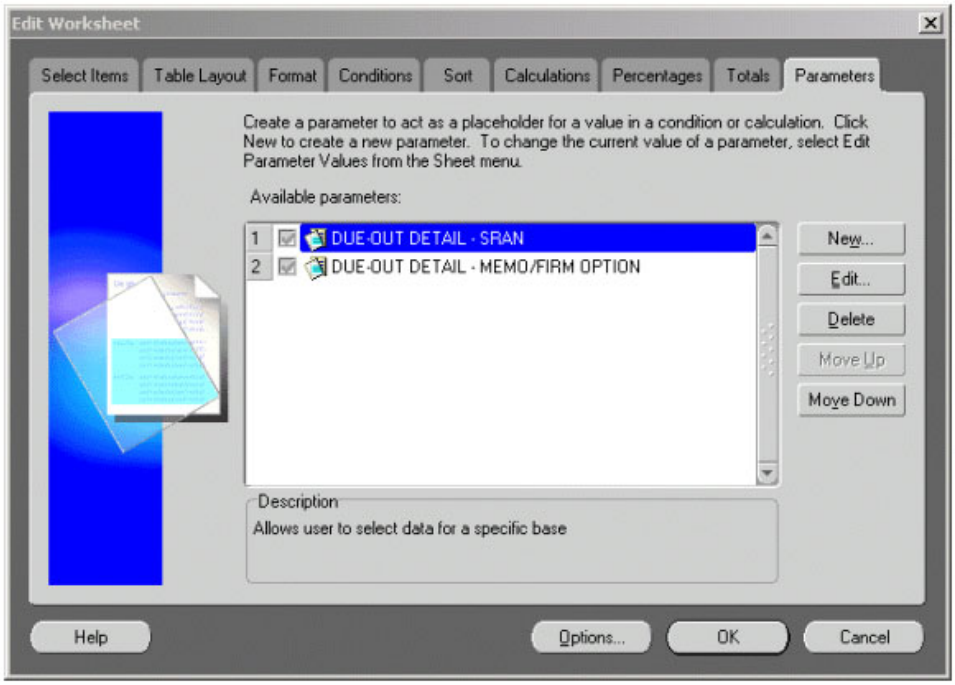
4.5.3.2.2. Edit a Parameter.

To edit an existing Parameter:

1. Display the worksheet to which you want to apply the Parameter.

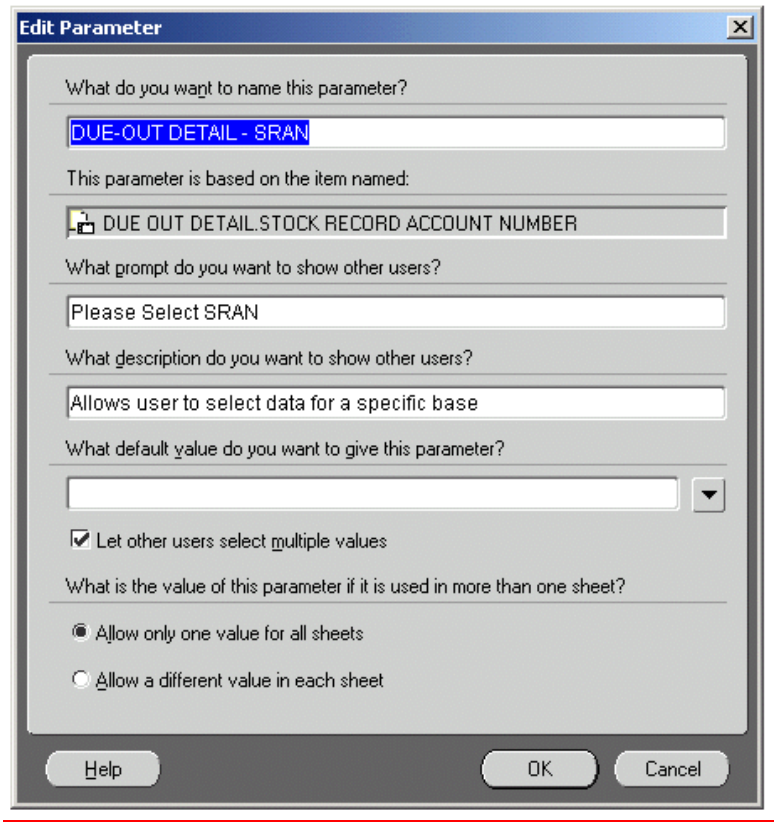
2. From the menu, choose **Tools**, then **Parameters**. The **Edit Worksheet** dialog opens with the **Parameters** tab highlighted.

Figure 4.48. Edit Worksheet Dialog Box.



3. Click the name of the Parameter you want to edit and then click **Edit**. The **Edit Parameter** dialog appears.

Figure 4.49. Edit Parameter Dialog Box.



4. Type in or select the features of the Parameter that you want to change.
5. Click **OK**. You return to the **Parameters** tab.
6. Click **OK** in the **Parameters** tab to apply your changes.

To select different Parameter values:

7. From the menu, choose **Sheet**, then **Edit Parameter Values**. **Edit Parameters** dialog appears.

NOTE:

You can click the Refresh icon to display the Edit Parameters dialog, (or choose **Sheet**, then **Refresh Sheet**).

8. Select a new data value, and click **OK**.

You'll see the results corresponding to the data value you have chosen.

4.5.4.4. Conditions. Another way to filter out unnecessary data and find the specific information you want when opening a workbook is to apply Conditions.

4.5.5. Conditions also filter the data to display only the exact information you want. Suppose, for example, a workbook contains all “due-outs”, but you only want to see data for the Munitions Maintenance Squadron. By applying the Condition statement of ORG Code=123, the workbook opens and displays data only for that organization. Condition statements tell Discoverer to find and display only the data that meets the Condition.

Although similar, **Parameters** and **Conditions** are designed for different purposes. Parameters offer you a choice and help you open a workbook quickly to see just the data that you want to see. Conditions are specific, fixed statements. Conditions are designed more for analysis so you can apply Condition statements while you are involved with data analysis to find very specific sets of data. However, Conditions and Parameters can also be used with each other for more sophisticated filtering procedures.

A typical data analysis task is to filter the data to find only that data that meets certain conditions. For example, you might want to limit the display of historical data of a stock number to the last two months. Alternatively, you want to see the data for only two types of Exception Codes. Each of these tasks involves filtering the data to find the specific data that meets the conditions.

Some sample conditions are:

Year = 1998 or 1999--The displayed data applies to 1998 and 1999 only. The workbook may contain data from other years, but it will not be displayed.

Extended Price > 3000--The worksheet displays items with an extended price greater than $3,000.00.

Warehouse Location <> 01%--The worksheet displays data for all items, except ones stored in Warehouse 01. Text values in conditional expressions must be in single quotes. Normally, Discoverer assigns the single quotes automatically.

Several features for creating conditions involve advanced analysis techniques. For example, instead of creating a condition for a defined data element, you can specify a condition based on a calculated value that computes which data can meet the condition.

4.5.5.1. Using Conditions. Conditions previously defined for a worksheet are listed on the Conditions dialog. You can turn these Conditions on and off to find the data you want to see. Turning a Condition on displays only the data that meets the Condition. Turning a Condition off restores the other data to the display.

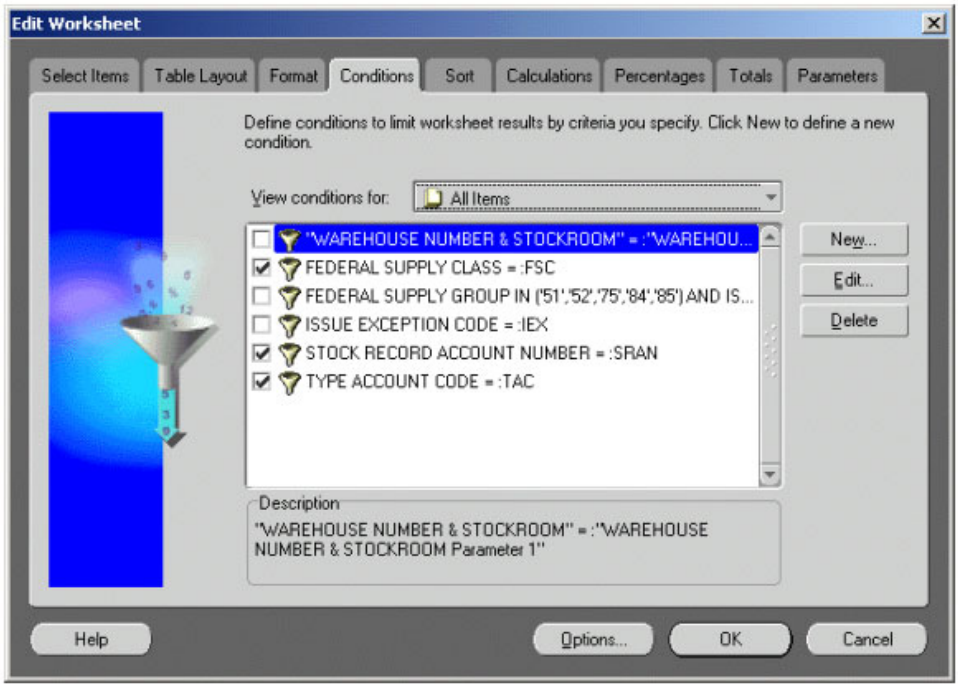
4.5.5.1.1. Turning on a Condition filters out the data you don't want to see. If you want to see all the data again, turn the Condition off.

View Available Conditions.

To view available Conditions:

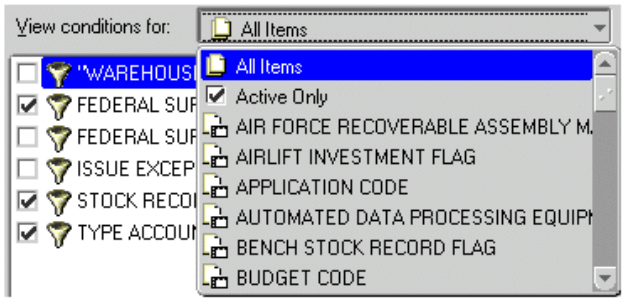
1. Choose **Tools**, then **Conditions** or click the **Condition** icon on the **Toolbar** to see the **Conditions** dialog. The **Conditions** dialog appears.

Figure 4.50. Edit Worksheet, Conditions Tab Dialog Box.



2. Click the drop down arrow next to the text box labeled **View Conditions for** to determine which Conditions you want to see.

Figure 4.51. Choosing Conditions Relating to Items.



3. Select one of the following:

<Data Item>-- lists Conditions that apply only to the selected data item.

All Items-- lists Conditions defined for all items in the workbook.

Active Only-- lists only the Conditions turned on for the current worksheet.

4.5.5.1.2. Activate/Deactivate Conditions.

To turn Conditions on and off:

1. Choose **Tools**, and then **Conditions** or click the **Condition** tool on the **Toolbar** to see the **Conditions** dialog. The **Conditions** dialog lists the Conditions already defined for your workbook, and shows which are turned on or off.

2. To turn on a Condition, click the box next to it so a checkmark appears. You can turn on more than one Condition at a time. To turn off a Condition, click a check-marked box to remove the checkmark.

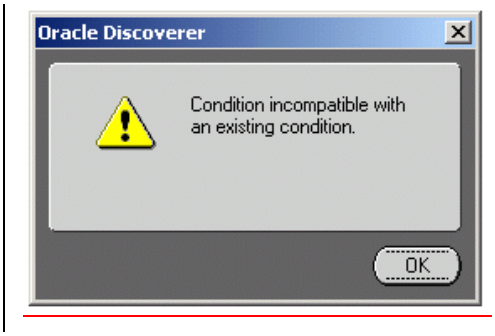
3. Click **OK**. Discoverer finds the data that meets the Condition(s), and displays it.

NOTE:

Do not click the **Delete** button to turn off a Condition. The **Delete** button permanently removes the Condition from your workbook.

If you select two (or more) Conditions that conflict, a warning appears. For example, the two Conditions "Demand Level = 2" and "Demand Level = 5" conflict because the first Condition removes data for all stock numbers except ones with a demand level of "2"; the second Condition tries to display only stock numbers with a demand level of "5" at the same time.

Figure 4.52. Condition Incompatibility Warning Box.



Complex conflicts may not be detected. In that case the worksheet appears with no rows of data.

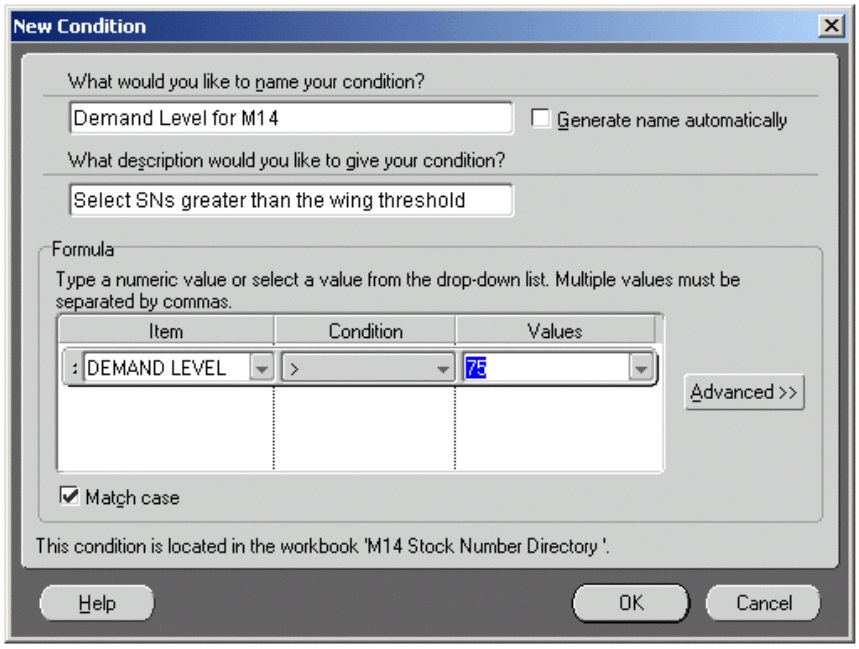
4.5.5.2. Creating New Conditions. If none of the existing Conditions filter the data to find the specific information that you want to see, you can create your own Condition statements. This section explains how to create relatively simple Condition statements. The section, "Grouping Multiple Conditions", explains how to create more complex Condition statements.

To create a new Condition:

1. Choose **Tools**, and then **Conditions**, or click the **Conditions** tool on the **Toolbar** to see the **Conditions** dialog box.

2. Click the **New** button to see the **New Condition** dialog box.

Figure 4.53. New Condition Dialog Box.



3. Type text for the following:

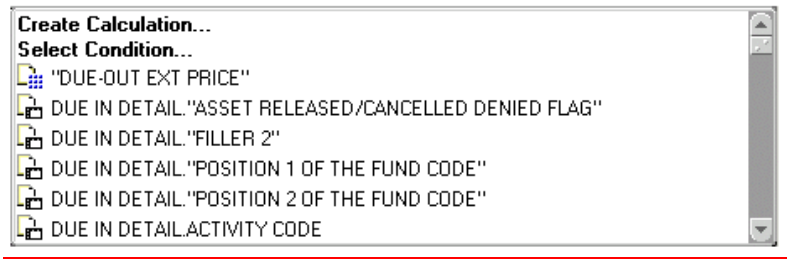
What would you like to name your Condition? -- Type a name in the text box. To automatically generate a name for the Condition based on the data item, the Condition, and the values that you select for it, check the box **Generate name automatically**.

What description would you like to give your Condition? -- For simple, straightforward Conditions, the name and description are usually sufficient to explain how the Condition will filter the data. However, advanced Conditions might need more detailed descriptions for clarity. Descriptions typed here appear in the **Conditions** dialog when the Condition is selected. If you don't enter a description, the Condition formula automatically appears as the description.

4. Create the formula for the Condition statement using the **Formula** section of the dialog. You build or edit a formula by first choosing an **Item** and **Condition** and then choosing or entering the appropriate values in the **Value(s)** text box.

5. Click the drop down button for **Item** and choose the data item for the first part of the Condition formula.

Figure 4.54. Data Items Drop Down List.

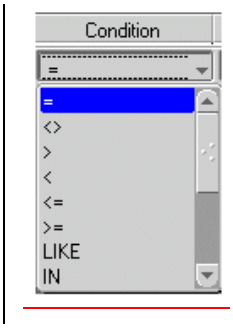


Other options on the drop-down list include **Create Calculation** and **Select Condition**, which use calculations or other Conditions to create the first part of the Condition. If you are editing an existing Condition, the option, **Copy Condition**, appears on the drop-down list. It is for quickly replacing an existing Condition on the **Edit Condition** dialog. A list of defined Condition appears and you can select the one you want. It replaces the currently selected Condition in the **Edit Condition** dialog.

If you select an existing Condition as the item, the boxes for the Condition operator and value are removed because the Condition you select is already complete. You can then use the Condition to create a more advanced Condition.

6. Click the drop down button for **Operator** and choose the Condition operator you want.

Figure 4.55. Condition Operator Dialog Box.

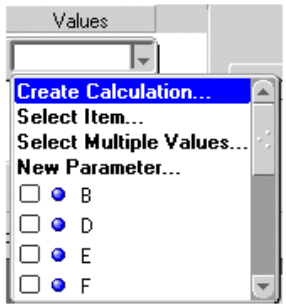


7. To complete the definition of the Condition click in the **Value(s)** box and enter a data value.

The drop-down list of values is a shortcut so you don't have to manually type the data value for an item. However, data values for various items might or might not appear in the list, depending on whether your Discoverer Administrator set up the data element to show a list of values. If clicking the **Value(s)** drop list button shows a list of data values you can then select the value you want for the item instead of manually typing it.

For example, if the four values for the data item named Activity Code are “B”, “D”, “E” and “F”, selecting "Activity Code is equal to," and then clicking the drop list button displays B, D, E, and F as the choices. See the example below.

Figure 4.56. Values Selection Dialog Box.



To use the results of a calculation as the value, select **Create Calculation**. A dialog for creating a new calculation appears.

To use another item as the Condition's value, choose **Select Item**. A list of the items in the worksheet appears and you can select an item from the list.

If the selected item for the Condition has Parameters defined for it, you can choose the option **Select Parameter** from the drop-down list to select an existing Parameter for the item.

If the Condition requires more than one value, you can choose **Select Multiple Values** from the drop-down list. A list of data values appears and you can select the ones you want.

You can also create new Parameters for the item by selecting **New Parameter** from the drop-down list. The dialog for creating new Parameters appears.

NOTE:

If you use Parameters in a Condition, the Parameter appears in the formula with a colon in front of it, such as ": my Parameter." If you are using calculations, the calculation appears with an equals sign in front of it so Discoverer knows it is a calculation The Condition will then substitute the results of the calculation for the item or value where you specified a calculation. Using the equals sign you can also type a calculation directly into the Item box or Value box, such as "=Item Table**.**Demand Level. = Item Table**.**Serviceable Balance".

8. If you are dealing with text and want the Condition to match the uppercase and lowercase characters in the text, click the box for **Match Case**. For example, if you want the Condition to filter the data to find all "Widgets" but not "widgets," click the **Match Case** box.

9. Click **OK**. The new Condition appears in the Conditions dialog and is turned on ready to be applied to the data. Click **OK** in the Conditions dialog to see the data that meets the Condition.

10. Click **OK** in the Conditions dialog to see the data that meets the Condition.

4.5.5.3. Condition operators. The following table describes the condition expressions**:**

Table 4.2. Condition Expressions

EXPRESSION	MEANING	EXAMPLE

=	Equals	Demand Level = 0; only the items with a Demand Level of 0 are displayed.
<>	Not equal	Demand Level <> 0; items with a Demand Level other than 0 are displayed. .
>	Greater than	Demand Level > 10; all items with a Demand Level greater than 10 are displayed.
<	Less than	Demand Level < 10; all items with a Demand Level less than 10 are displayed.
<=	Less than or equal to	Demand Level <= 10; all items with a Demand Level equal to or less than 10 are displayed.
>=	Greater than or equal to	Demand Level >= 10; all items with a Demand Level equal to or greater than 10 are displayed.
LIKE	Similar to (using wildcard matching)	Nomenclature LIKE `A%'; finds all nomenclatures beginning with the letter A. The percent (%) sign matches any number of characters. An underscore symbol (_) matches a single character.
IN	Contains one or more values	UJC IN (`AA', `BQ', `1A'); finds data that contains at least one of the values.
IS NULL	Contains no data (not even zero)	Commission IS NULL; displays data only when commission has no value.
IS NOT NULL	Contains some data (even zero)	Commission IS NOT NULL; displays data when commission has any value.
NOT IN	Is not contained in one or more values	UJC NOT IN (`AA', `BQ' ‘1A’); does not display items where the UJC on the Due-Out is AA, BQ, or 1A.
BETWEEN	A value lies between two values	Unit Price BETWEEN 1000 AND 2000; displays items with a Unit Price greater than or equal to $1,000 or less than or equal to $2,000.
NOT BETWEEN	A value lies outside of two values	Unit Price NOT BETWEEN 1000 AND 2000; displays items with a Unit Price less than $1000 or greater than $2,000. ,
NOT LIKE	Not similar to	Nomenclature NOT LIKE `A%'; finds all nomenclatures not beginning with A. The percent (%) sign matches any number of characters. An underscore symbol (_) matches a single character.
!= and ^ =	Not equals	Shelf Life Code (SLC)! = `1'; finds all items where the SLC does not equal 1. Note: These two expressions have the same meaning because both are supported by SQL programming. Therefore, if you use an SQL programming statement to create a complex conditional value, Discoverer can recognize it regardless of which expression you use in the program.

4.5.5.4. Grouping Multiple Conditions. You can group multiple Condition statements. Conditions consisting of multiple statements are connected using the AND/OR operators. You can also nest statements; so one statement is contained within the definition of another

statement.

NOTE:

There isn't a NOT operator, but you can create negated Conditions by using complementary operators.

Examples:

Find stock numbers with Warner Robins AFB as the source of supply and serviceable balance greater than 10.

The Condition statement is: Serviceable Balance >10 **AND** Routing Identifier= **'**FLZ'. Stock numbers from other RIDs and with a serviceable balance less than 10 are not displayed.

Find stock numbers with Tinker AFB as the source of supply, and all stock numbers with a budget code equal to '8' regardless of the source of supply.

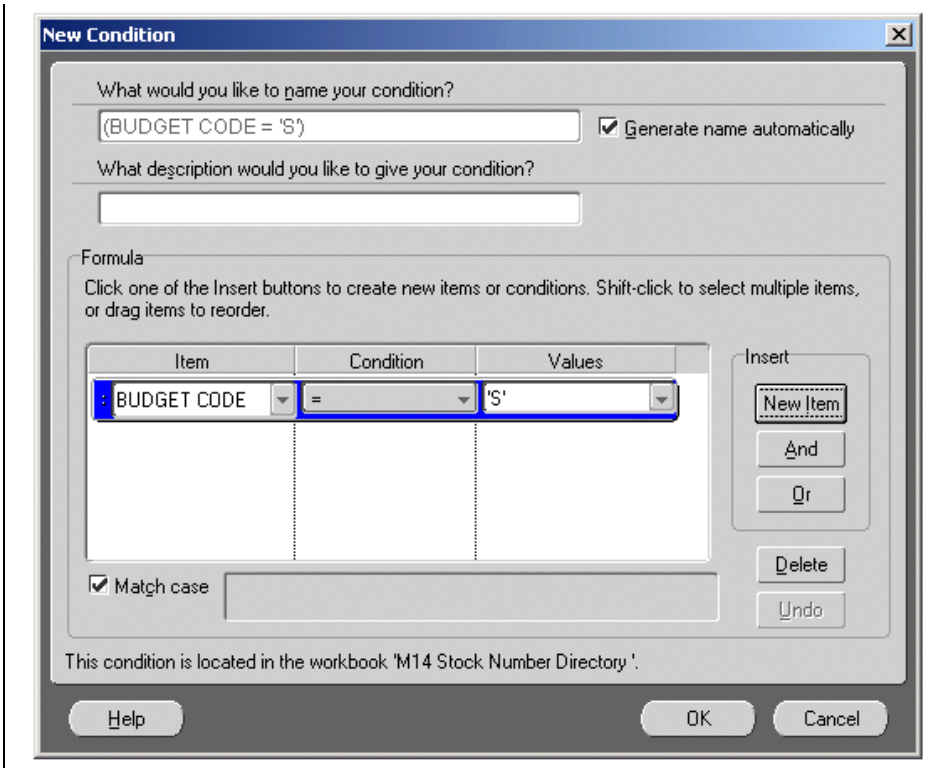
The Condition statement is: Budget Code = 8 **OR** Routing Identifier= **'**FHZ'. The data display shows stock numbers with budget code of '8' regardless of RID, and all those with a RID of 'FHZ'.

4.5.5.4.1. Group Multiple Conditions.

To group multiple conditions

1. In the **New Condition** dialog, click the **Advanced** button. The **Advanced Conditions** dialog appears.

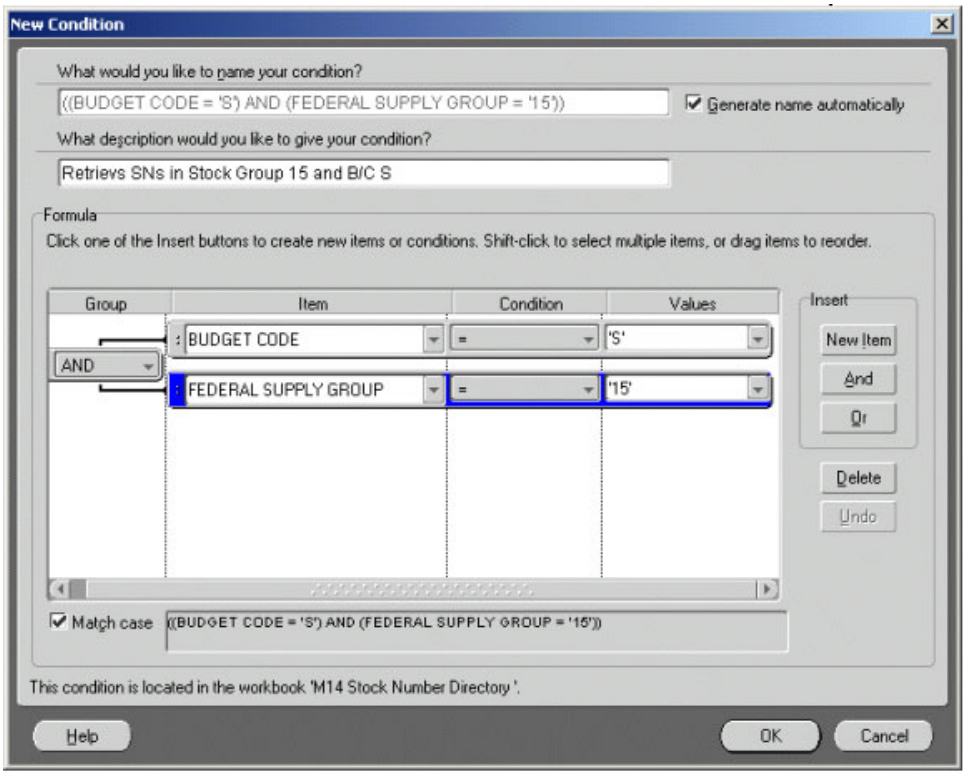
Figure 4.57. New Condition Dialog Box.



Discoverer adds **Insert** buttons for **New Item**, **And** and **Or**. You use these buttons to create the advanced Condition.

2. Create the first line of the Condition. In the example above it is Budget Code = ‘S’.
3. Click the **New Item** button to add another line to the Condition statement.

Figure 4.58. Example of Advanced Condition Statement.



Notice the new **Group** column added at the left side of the dialog. The **Group** column indicates how the statements are grouped by the operator. By default, when you first write multiple statements they are grouped with the logical AND operator. To change the group operator to OR, NOT AND, or NOT OR, click the drop-down menu next to it.

4. Create the second line of the Condition.

Discoverer displays the formula at the bottom of the dialog so you can verify that the statement's logical construction is correct.

5. Click **OK** to save the multi-statement Condition.

NOTE:

You can drag Conditions and items on the dialog. Dragging Condition A onto Condition B replaces Condition B with Condition A. You can also select **Copy Condition** from the Item drop-down list. In that case, the values of the copied Condition replace the values of the selected Condition.

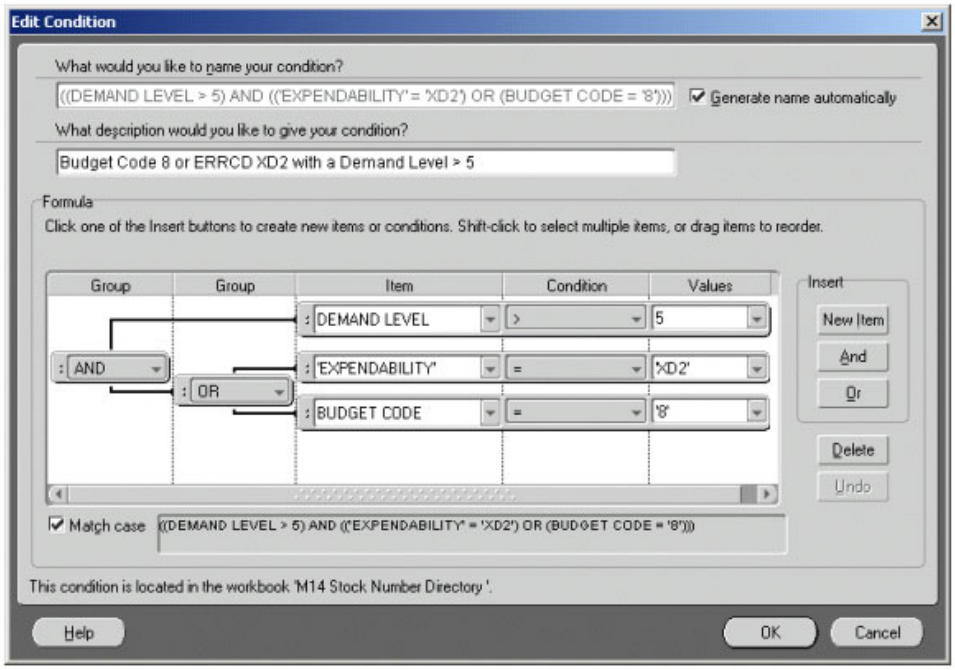
The operators can also be "nested" to several levels to group multiple Conditions. For example, the Condition to find stock numbers with demand levels greater than 5 and ERRCD XD2 or ones with demand levels greater than 5 with budget code 8 for any ERRCD is: Demand

Level>5 AND (ERRCD='XD2' OR Budget Code=8).

4.5.5.4.2. Nest Multiple Conditions. To nest multiple conditions:

1. Click the column handle next to the group operator.
2. Click the **And** or **Or** button to add another group to the Condition.

Figure 4.59. Example of Condition Nesting.



3. The formula at the bottom of the dialog shows the new statement construction.

NOTE:

Using the **AND/OR** operators can be tricky, especially when grouping statements. Check the data carefully to see if the Condition produces the desired result.

NOTE:

If you delete a Condition, the **Undo** button becomes active, so you can restore it if you need to. **Undo** only works after a deletion.

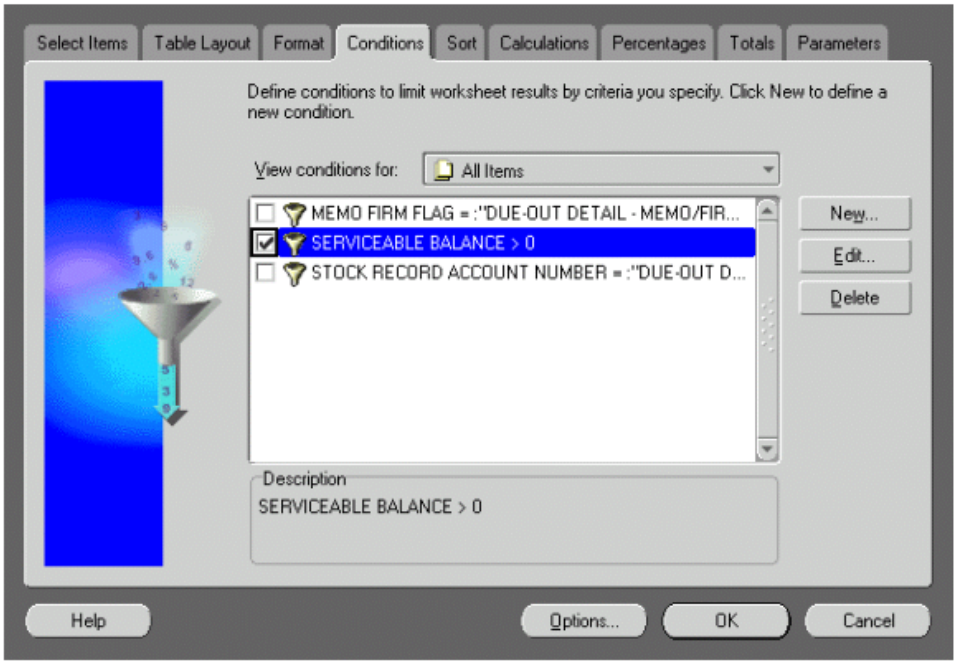
4. Click **OK** to save the multi-statement Condition.

4.5.5.5. Applying Conditions to Worksheets.

To apply an existing condition:

1. When you finish creating a Condition, Discoverer checkmarks it to indicate it is ready to be applied to the data.

Figure 4.60. Apply Existing Condition.



2. Click **OK** to apply the Condition to the data and see the results.

4.5.5.6. Editing and Deleting Conditions. ♦ If a Condition statement does not find the exact data you want, you can edit the statement. For example, if the statement finds data for budget code 8, but your query now requires data for budget codes 8 & 9, you can edit the Condition to find the newer data. Deleting a Condition removes it permanently from the workbook. However, because you can turn Conditions on and off, you may not want to delete a Condition in case you'll need it in the future.

4.5.5.6.1. Edit a Condition.

To edit a condition

1. Choose **Tools,** and then **Conditions**, or click the **Conditions** tool on the **Toolbar**. The **Conditions** dialog appears.
2. Select the Condition in the **Conditions** dialog.
3. Click the **Edit** button. The Edit Condition dialog appears.

NOTE:

You cannot edit Conditions created by the Discoverer Administrator. If you select one of these Conditions, the **Edit** button changes to **Show**. You can click the **Show** button to review the Condition and see its formula, but you cannot make changes. In addition, advanced Conditions

containing sub queries created in Discoverer 4.1 cannot be reviewed or edited. A message tells you that the Condition cannot be reviewed or edited. You can still turn these Conditions on and off, however, to analyze your data in the way you want.

4. Make the changes you want to the Condition.

5. Click **OK**. The Condition is now edited.

6. To apply that edited Condition to the data, make sure it is checked on and click **OK**.

4.5.5.6.2. Delete a Condition.

To delete a condition

1. Choose **Tools**, and then **Conditions**, or click the **Conditions** tool on the **Toolbar**. The **Conditions** dialog appears.

2. Select the Condition you want to delete.

3. Click the **Delete** button. Discoverer removes the Condition from the list.

4.5.6. Create a New Workbook. Discoverer Administrator at SSG creates worksheets and workbooks for use by all Air Force Supply personnel. However, while working with Discoverer, you may want to create additional workbooks and worksheets. For example, you may want to create a special worksheet as a scheduled report that gets printed each week as part of your local inventory management. On the other hand, you may want to consolidate Requisition Analysis information in a separate workbook that you share with all bases in a Major Command (MAJCOM). If you have the appropriate access rights (usually granted by the database administrator), you can use the steps explained in this chapter to create workbooks and worksheets.

NOTE:

The same process is used to create workbooks and worksheets. In fact, to create a new workbook, you create the initial worksheet for the new workbook. Thus, the steps described in this section are for both processes--building a new workbook and building a new worksheet.

4.5.6.1. Table Joins. Before a user can select data from different folders, a relationship must exist between those different data elements. These relationships are created in Discoverer with "Joins". A "Join" serves several purposes: 1) Brings or links different tables (Folders) together, 2) Provides relationship between different tables, 3) Logical pairing of tables in a database on matching data in specific columns. When a user selects an item or folder to create a worksheet, only those folders with a join (relationship) with the selected folder are available. Every other folder is inaccessible (grayed-out).

4.5.6.2. Discoverer uses two types of "Joins": 1) Inner (Natural) and 2) Outer.

1. Inner-Join is based on a one-to-one or one-to-many relationship. It will retrieve all rows from one table and any matching rows from another table. When values in two tables match, they are combined and displayed as one row.

For example: Inner-Join between the requisition number on the due-out detail and the requisition number on the due-in detail will only return due-outs that have requisition numbers.

For example: Inner-Join between the stock number on the item record and the stock number on

the supply point detail will return only those stock numbers that have a supply point detail assigned.

2. Outer-Join is based on a one-to-one, one-to-many, or one-to-none relationship. It will retrieve all rows from one table and any matching rows from another table. When values in two tables match, they are combined and displayed as one row. It will also display all rows from one table even if the joined table does not have a matching value.

For example: Outer-Join between the requisition number on the due-out detail and the requisition number on the due-in detail will return due-outs that have requisition numbers and due-outs without requisition numbers.

For example: Outer-Join between the stock number on the item record and the stock number on the supply point detail will return all stock numbers, with or without a supply point detail assigned.

4.5.6.3. Create a new workbook. Basic steps to create a new workbook or worksheet are as follows:

Required Steps:

1. Select the type of display for the new worksheet or workbook.
2. Select the data that belongs on the worksheet or in the workbook.

Optional Steps:

1. Arrange the data on a table or cross tab layout.
2. Sort the data.
3. Select conditions to apply to the data.
4. Select calculations to apply to the data.

To create a new workbook or worksheet:

1. Choose either of the following:

   Choose **Sheet**, and then **New Sheet** to build a new worksheet.

   Choose **File**, and then **New** to create a new workbook.

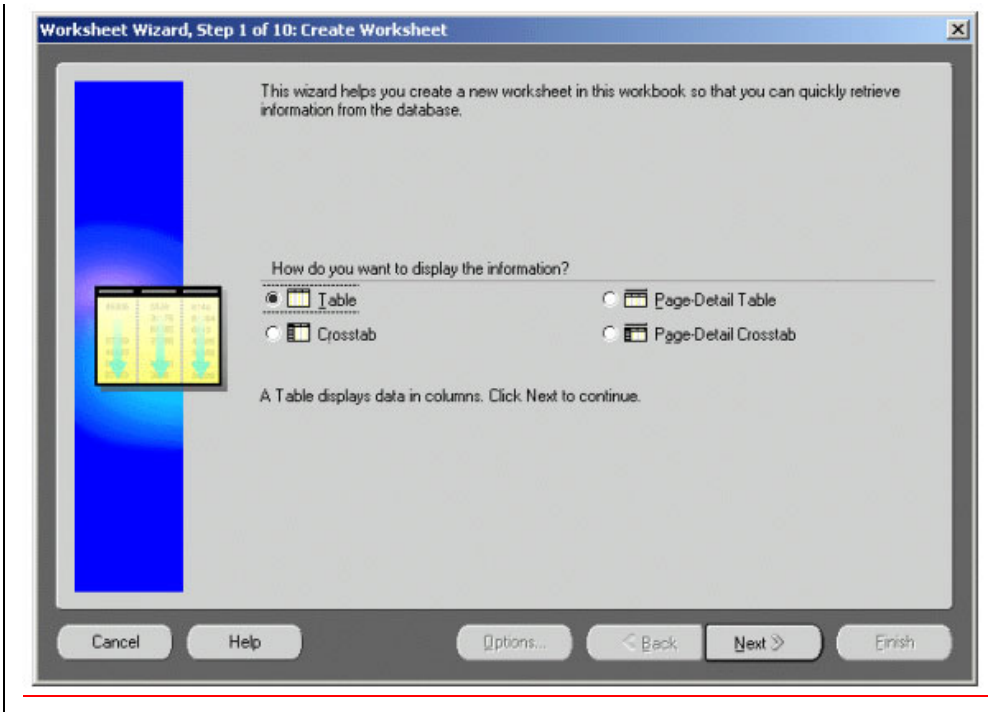
NOTE:

The sample dialogs in this section are for creating a new worksheet. The dialogs for creating a new workbook are the same, except the dialog titles are "Create Workbook" instead of "Create Worksheet."

Worksheet Wizard Step 1 of 10 Create/Open Workbook dialog appears. This dialog is where you select the layout--table or cross tab--which you want to use to display the data on the new worksheet.

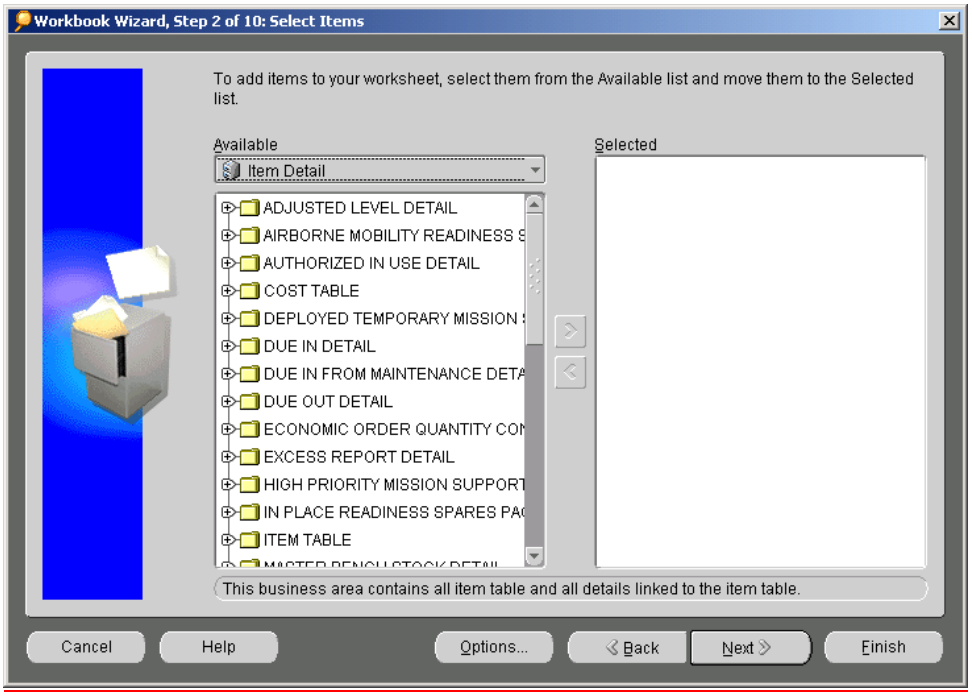
2. Click the radio button for the type of display for the new worksheet. As you select each type, the corresponding description is displayed as well.

Figure 4.61. Step 1, Create Worksheet Wizard.



3. Click **Next**. The **Workbook Wizard, Step 2 of 10: Select Items** dialog appears. It is used for selecting the data that you want on the new worksheet.

Figure 4.62. Step 2, Select Items Wizard.



This dialog box lists the data in the business area that you can use to build the new worksheet. To include data on the new worksheet, you move it from the **Available** column to the **Selected** column.

The following describes the icons displayed in the window:

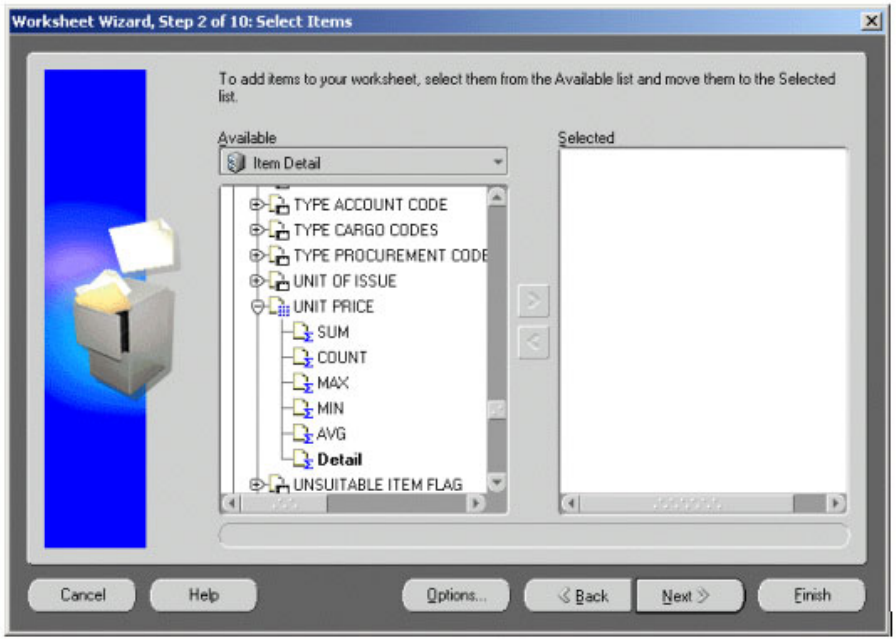
Business area**--** Displays a business area created by the Discoverer Administrator; to select another business area for the new worksheet, click the drop-down arrow and choose from the list of business areas.

Folders-- Holds the items that you can select for your worksheets. Click the plus (+) sign next to a folder to see all of the items in it.

Items have also have plus signs next to them, indicating you can select values for those items as well. For example, the Item Table item contains the item record data in the database. You can select a specific Budget Code to add to the worksheet.

Following figure shows that the Item Table folder is expanded to show its items (such as Freeze Code and Stock Number), and the Freeze Code item is expanded to show the list of values that correspond to Freeze Code (Null, A, C, I, Q, and S) and the ways to aggregate the data (Count, Max, Min).

Figure 4.63. See Available Items.



The icons that may appear in the expanded list are:

Axis Item-- corresponds to a column on a table or a level on a cross tab; axis items remain constant and have relatively few values, such as the names of Exception Codes, Shelf Life Codes, Freeze Codes. The values of an axis item are shown as a list of values.

Axis Item Value-- one of the values of an axis item.

Numeric Item-- represents numeric data; corresponds to the data in the body of a cross tab. The values of numeric items can change as you analyze the data, such as summing the price of obligated due-outs for organizations. Numeric items also behave as Axis items on tables.

Aggregations-- the mathematical functions to aggregate the data; for text items such as Region, the typical aggregations are Count, Max, and Min. That is, you can count the number of text items, or find the highest or lowest (where A might be the highest and Z the lowest). For numeric data, the typical aggregations are Sum, Count, Max, Min, Average, and Detail. For example, you can find the Sum or Average of the numeric data with the aggregation. The aggregation in boldface type is the default. The Database or Discoverer Administrator sets which aggregation is the default.

Condition-- A filter for finding specific data. The database administrator defines conditions for the folder, not for individual items.

4. Select the business area from the drop-down menu at the top of the **Available** list.
5. Click the plus (+) sign next to a folder to see all of the items in it.

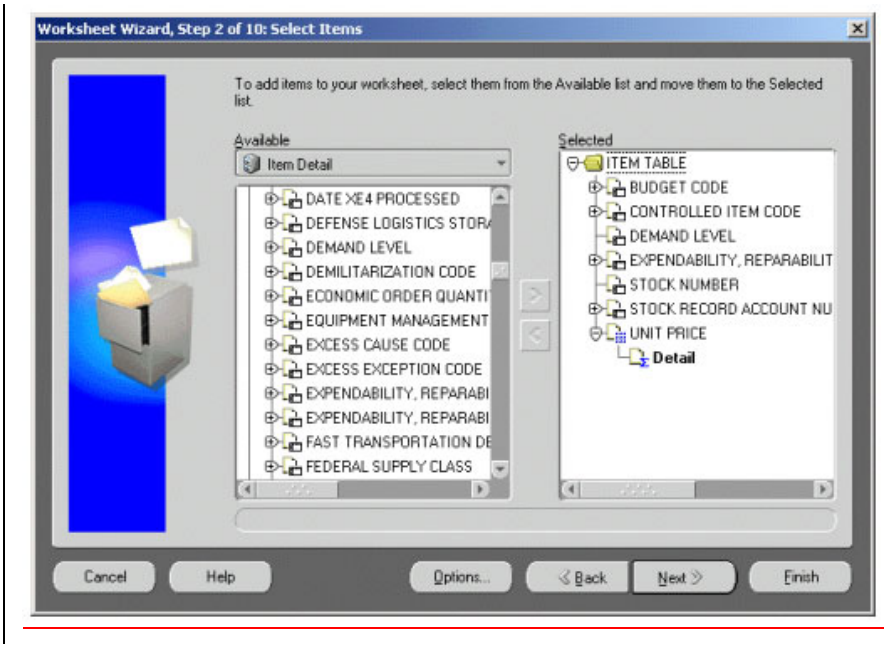
Folders containing items available for the current worksheet are active. Others are grayed out. If a relationship **does not** exist between the two folders, they are displayed as inactive.

Items may have plus signs next to them as well, indicating you can select values for those items as well. For example, Freeze Code item contains the names of the various freeze codes in the database. You can select a specific freeze code to add to the worksheet. By doing this, you are implicitly creating and activating the Condition `Freeze Code' = <name>.

6. From the list of available data items, select the specific data items to add to your worksheet. 'Shift-click' on items to select multiple items. 'Ctrl-click' to select items not adjacent to one another. The **Right Arrow (Add)** button in the middle of the dialog becomes active.

7. Click **Right Arrow (Add)** button to move the available items to the **Selected** list. Those items are then the data items for the new worksheet. You can also drag the selected items from the **Available** list to the **Selected** list. The following example shows several items moved to the **Selected** list.

Figure 4.64. Example of Selected Items.



You can select data at various levels in the **Available** list. For example, selecting a folder and moving it to the **Selected** list, moves all the data within the folder to the list. Similarly, moving an item to the **Selected** list moves all values in it to the list and, ultimately, to the worksheet. For example, moving the **Budget Code** item to the **Selected** list, results in all budget code values appearing on the worksheet.

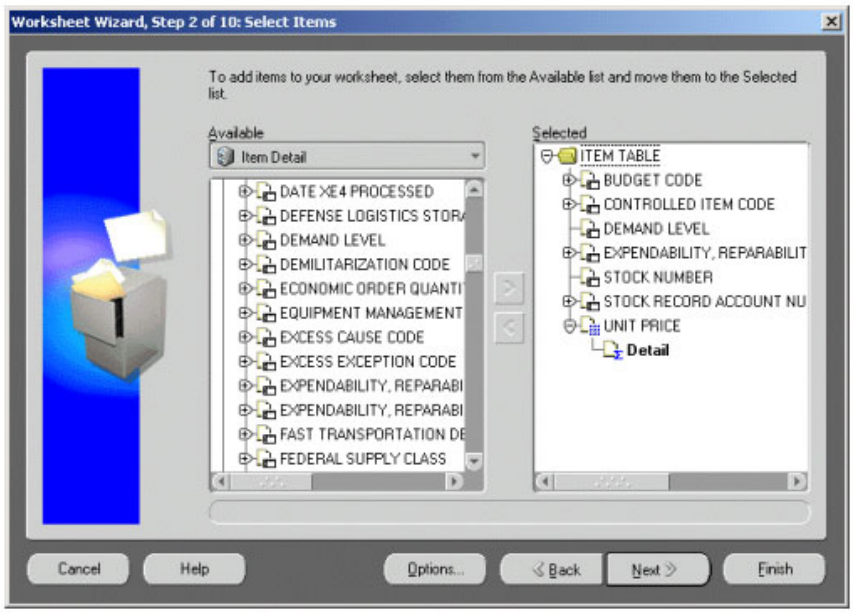
Moving a numeric item to the **Selected** list automatically includes its default aggregation

functions. All values are automatically included as well. Selecting and moving an axis item, however, does not automatically include aggregate functions.

To remove an item from the **Selected** list, click it and drag it back to the **Available** list, or click the **Left Arrow (Remove)** button.

8. Depending on the items you select from multiple folders, you may see a dialog that asks you to identify the manner in which the folders are joined. This means there are multiple ways of combining the items they contain and you select which method is used.

Figure 4.65. Join Folders Dialog Box.



9. At this point, you can click **Finish** to create a new worksheet. Clicking **Next** shows the next (optional) page for adding other features to the new worksheet.

4.5.7. Editing a Worksheet.

To edit a worksheet:

1. Open the worksheet you want to edit.
2. Click the **Edit Sheet** icon on the toolbar, or choose **Sheet**, and then **Edit Sheet**.

Edit Sheet dialog appears.

Figure 4.66. Edit Worksheet Dialog Box.

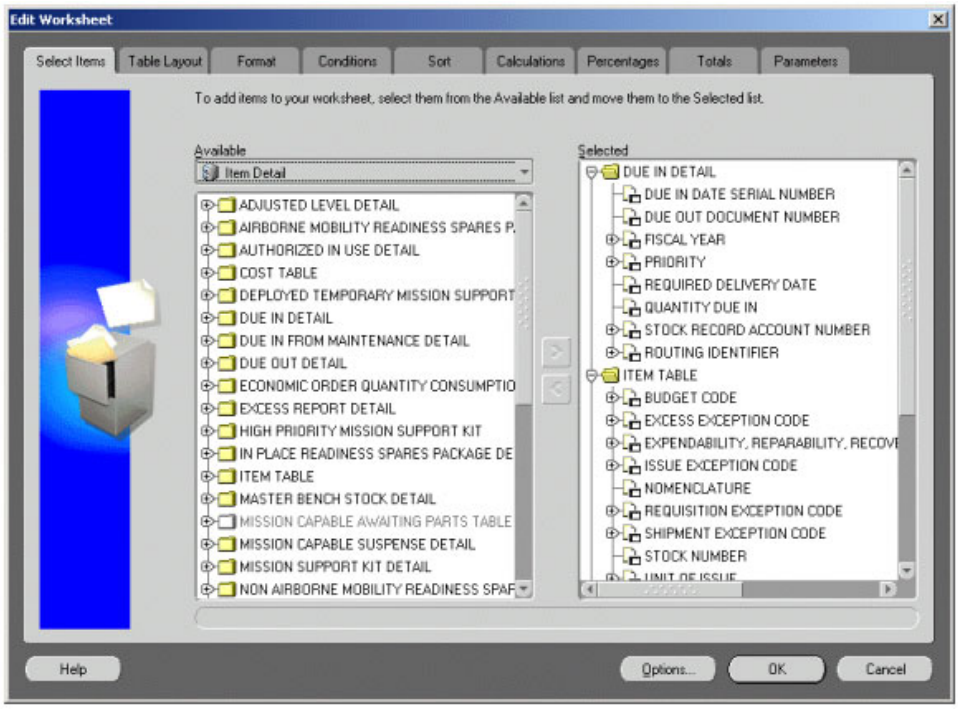


Figure above is for editing a tabular worksheet. A similar dialog appears for cross tab worksheets, except **Table Layout** tab becomes **Cross tab Layout** and the dialog does not include the **Sort** tab. To sort cross tab data, choose **Tools**, and then **Sort**.

4.5.7.1. Adding and Deleting Items on a Worksheet. First tab on the Edit Sheet dialog is for adding or deleting items on a worksheet. For example, if the original worksheet did not contain the item "Demand Level", you can add an item for the demand level.

Adding a new item to a worksheet inserts a column to the table or a row or column to a cross tab.

4.5.7.1.1. Add an Item to Current Worksheet.

To add an item to the current worksheet:

1. Click the plus (+) sign next to folders and items to see their contents.
2. Select the item in the **Available** list.
3. Click the **Right Arrow** button or drag the item to the **Selected** list.
4. Delete an Item from Current Worksheet.

To delete an item from the current worksheet:

1. Select the item in the **Selected** list.

2. Click the **Left Arrow** button.

You can also delete items from a worksheet using the **Table Layout** tab or the **Cross tab Layout** tab. Click on the item, depress the **Delete** key.

4.5.7.2. Changing a Worksheet's Layout. You can rearrange and pivot the page items, axis items, and columns on a worksheet by editing the layout.

To change a Worksheet's Layout:

1. Open the worksheet that you want to edit.
2. Click the **Edit Sheet** icon on the toolbar, or choose **Sheet**, and then **Edit Sheet**.
3. Click the **Table Layout** tab or **Cross tab Layout** tab. The layout shows the current arrangement of the items on the worksheet.

Figure 4.67. Examples of Table and Cross Tab Layout.

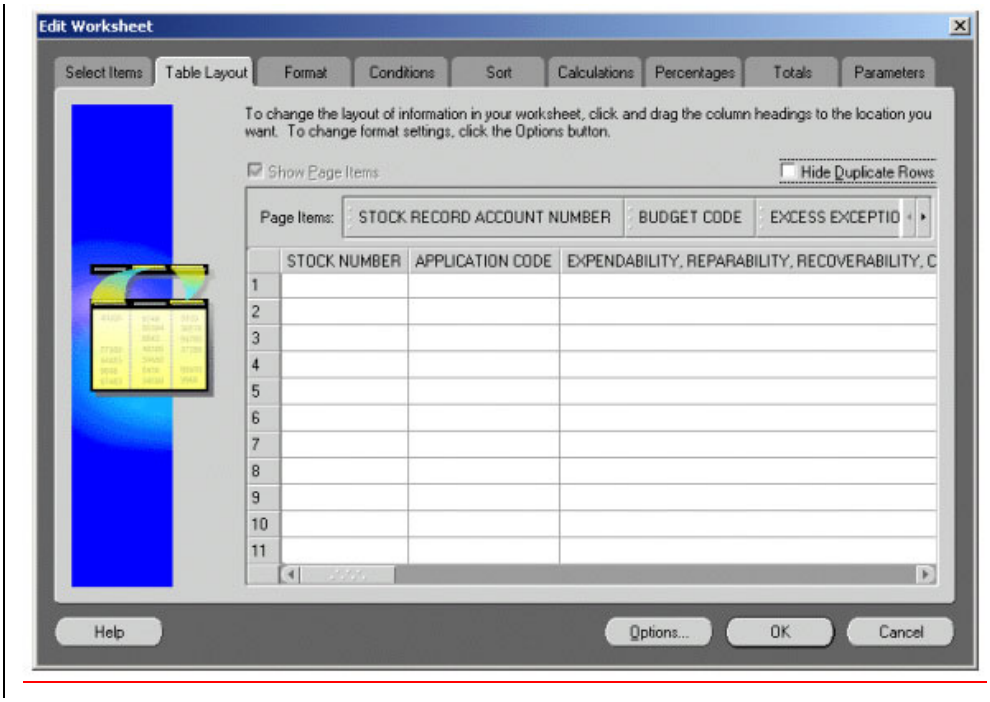
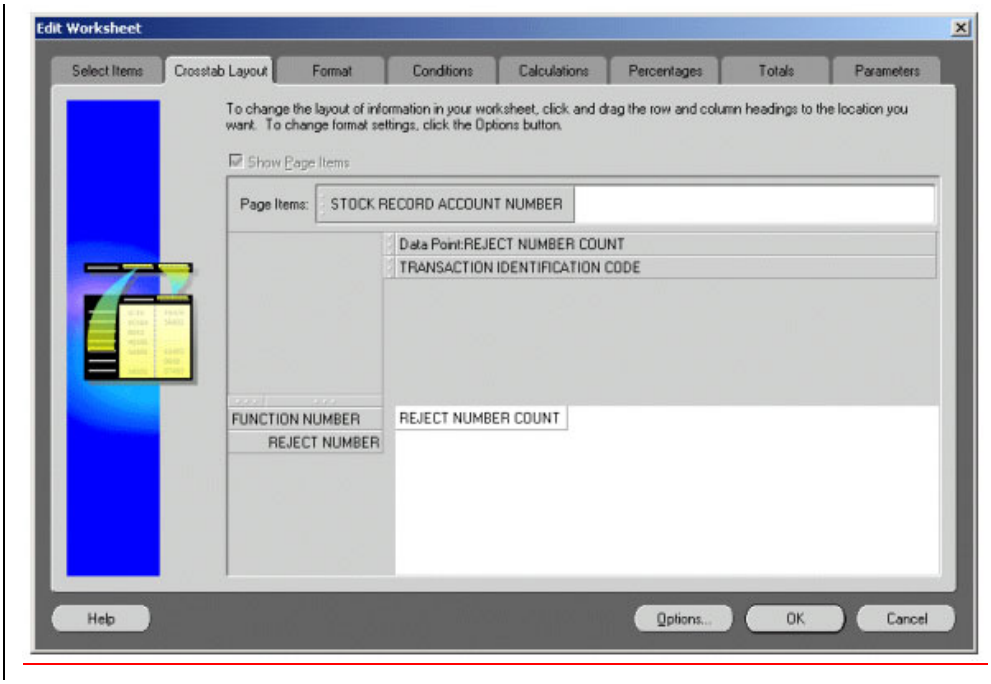


Figure 4.68. Examples of Table and Cross Tab Layout.



4. Select one of the items on the layout.

5. Drag the item to its new position on the layout. A black line on the top/bottom/side of an adjacent item shows where the items will be located when you release the mouse button.

6. Release the mouse button when the item is in its new position.

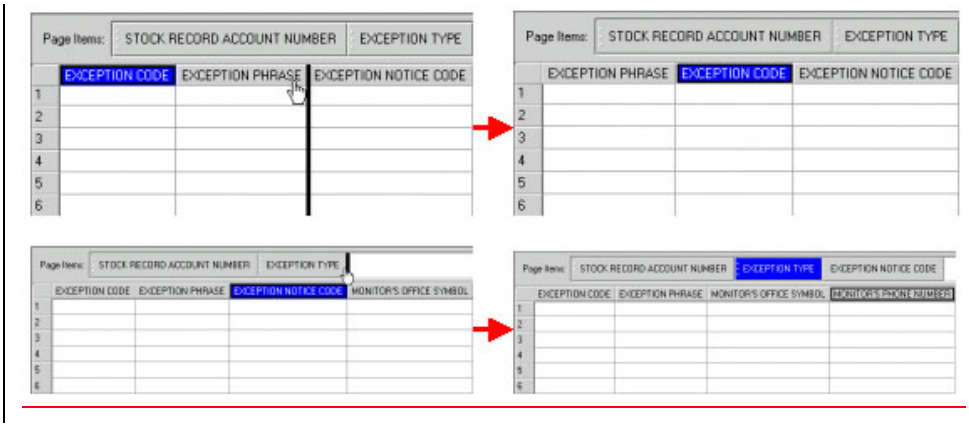
7. To delete an item from the layout, select it and click the **Delete** key on the keyboard.

Following examples on the **Table** layout show:

Moving the **Exception Code** column to the right to become the second column on the worksheet

Pivoting the **ENC** item from a column to become a **Page Item.**

Figure 4.69. Examples of Rearranging Columns on a Table.

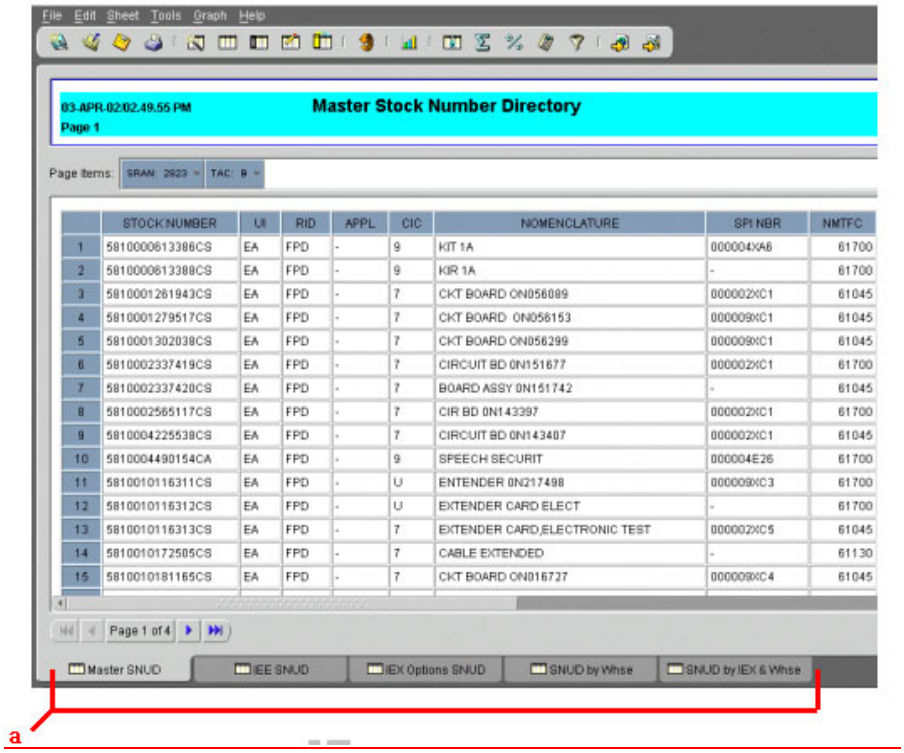


If the worksheet contains rows with duplicate data you can hide those rows by clicking the option, **Hide Duplicate Rows**.

To remove the **Page Items** box from the top of the worksheet, drag all items from that box to the report body, uncheck **Show Page Items**.

4.5.7.3. Switching to Another Worksheet. Tabs on the bottom of the workbook window show the various worksheets in the workbook. Clicking a tab switches to the next worksheet.

Figure 4.70. Switch to Another Worksheet.



Key to Figure:

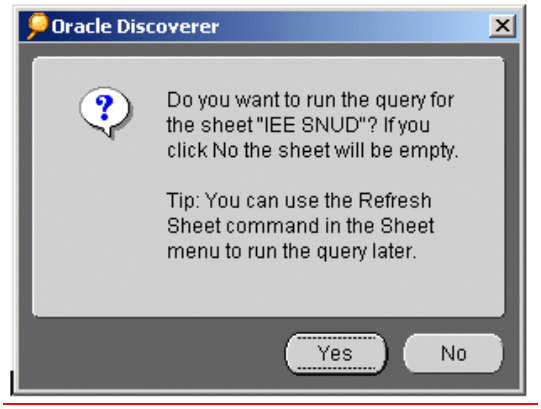
a. Click these tabs to switch to another sheet in the workbook. This figure shows the worksheets named Master SNUD, IEE SNUD, IEX Options SNUD, SNUD by Whse, and SNUD by IEX & Whse. Master SNUD is the active worksheet in the workbook.

To switch to another worksheet:

1. Click the appropriate tab at the bottom of the workbook window.

If you've already opened the worksheet, clicking the tab switches to it immediately. If you haven't opened it yet, Discoverer searches the business area to find the data that belongs on the worksheet. Because each worksheet involves a query (search) of the business area, opening a worksheet for the first time takes a few moments while the search is completed. A dialog box reminds you that the search will take place.

Figure 4.71. Open a Worksheet.



2. Click **Yes** to open the worksheet.

Discoverer then estimates the time involved for the search and gives you the option to open the worksheet. Click **OK** to open the worksheet.

4.5.7.4. Saving a Workbook. Saving a workbook saves all of its changes. It is important to note the author of a workbook is the only one who can "Save" changes to the workbook using its current name. Anyone other than the author can only "Save" changes made to the workbook using a different workbook name ("Save As").

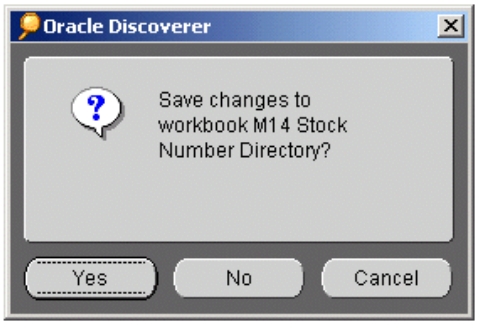
To save a workbook:

Choose one of the following:

Choose **File**, and then **Save**. The changes are saved and the workbook remains open (author of the workbook only).

To close and save a workbook at the same time, choose **File**, and then **Close**. If you haven't made changes to any worksheet in the workbook, it closes. If the workbook contains any unsaved changes on any worksheet, a dialog reminds you to save the changes (author of the workbook only).

Figure 4.72. Save Work Book Reminder.



To save the workbook under a new workbook name, choose **File**, and then **Save As.** The dialog appears for saving a workbook under a new name.

Save a workbook under the same name:

To save a workbook, choose **File**, and then **Save**. The changes are saved and the workbook remains open.

To close and save a workbook at the same time, choose **File | Close**. If you haven't made changes to any worksheet in the workbook, it closes.

If the workbook contains any unsaved changes on any worksheet, a dialog box reminds you to save the changes

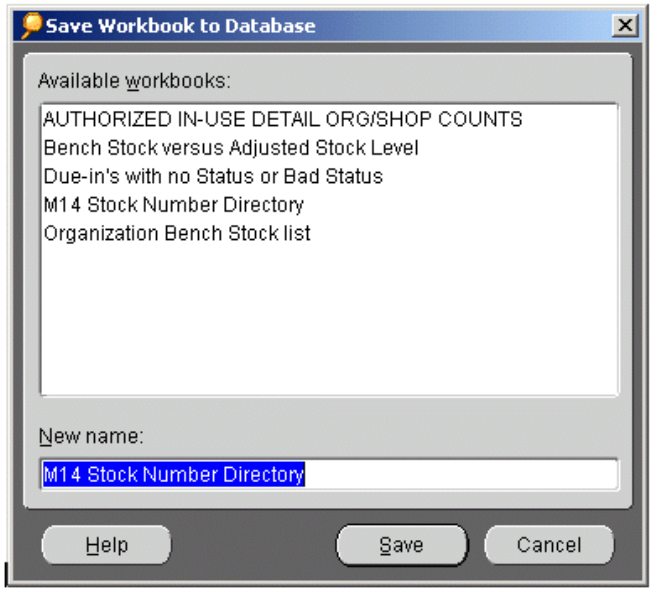
Click **Yes** to save the changes; click **No** to close the workbook without saving the changes; click Cancel to keep the workbook open without saving the changes.

To save the workbook under a different name:

Choose **File**, and then **Save As**.

Save Workbook to Database dialog box appears and lists the workbooks already saved to the database. Enter a new name for the workbook and click "Save".

Figure 4.73. Save Workbook to Database Dialog Box.



4.5.7.5. Refreshing Data in a Workbook. Data in a workbook appears as the result of querying the database at a particular time. To refresh the data, you re-query the database. Refreshing often applies to databases receiving data from online transactions or other dynamic sources.

Refreshing the data ensures that the information you are viewing is up-to-date.

To refresh data in a worksheet:

Choose **Sheet**, and then **Refresh Sheet.** Discoverer displays the worksheet results based on the updated data.

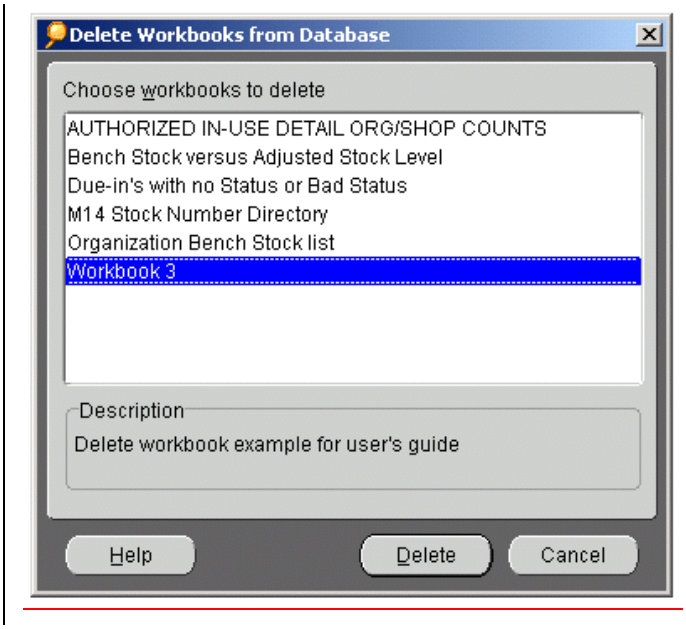
4.5.7.6. Deleting a Workbook. Deleting a workbook permanently removes it. You should **not** delete a workbook unless you are certain you won't need it in the future.

To delete a workbook:

1. Choose **File | Manage Workbooks | Delete**.

Delete Workbook from Database dialog box appears and lists the workbooks currently in the database.

Figure 4.74. Delete Workbooks from Database Dialog Box.



2. Click the name of the workbook you want to delete, and then click **Delete**.

4.6. Presenting Data on a Graph. A graph is a pictorial presentation of numeric data. A graph is also an analysis tool used to visually highlight relationships or trends. Types of graphs include area, bar, line, pie, scatter graphs, and others. Values from worksheets, or data points, are displayed as bars, lines, pie slices, etc.

Discoverer provides the **Graph Wizard** to help you create and edit graphs. A series of dialogs takes you through the processes of choosing the data you want to graph, what kind of graph you want, and how the graph should look.

4.6.1. About Worksheets and Graphs.

Each Discoverer worksheet can have one graph. If you already have a graph in a worksheet and want create a completely new graph, you can either:

First delete the existing graph, and then create a new graph.

Duplicate the worksheet to create a new worksheet, and then create a graph for the new worksheet, (using the options **Sheet**, and then **Duplicate as Table** and **Sheet**, and then **Duplicate as Cross tab)**.

4.6.2. Graphing Terminology.

Terminology below appears in the **Graph Wizard:**

Group: In a graph, a group is a subset of the displayed data, generally Markers that are connected to each other or are aligned with each other. For example, in a stacked bar graph, each stack of bars is a group.

Marker: A Marker is a graphical object that represents data values. Data Markers can be bars (in bar graphs), lines (in line graphs), slices (in pie graphs), areas (in area graphs), or data points (in scatter graphs). Markers of the same shape and color are referred to as a data series.

Label: Labels are text attached to graph Markers. For example, if your bar graph shows count of stock numbers for a particular budget code, labels at the top of each bar would show the total count for each budget code. Both the X-axis and the Y-axis can have labels. Even the individual slices of a pie chart can have labels.

4.6.3. Choosing Best Type of Graph for Your Data. To present your worksheet data visually in Discoverer, you can choose from 12 graph types: For example, Bar Graph, Line Graph, and Pie Graph. Each graph type has one or more variations, or sub-types. For example, the Area Graph has three sub-types: Area, Percent Area, and Stacked Area.

Most graph sub-types have a three-dimensional effect that you can switch on and off as required (using the 3D-Effect check box).

Note that the 3D-Effect should not be confused with three-dimensional graphs, such as **3D-Cube** and **Surface**, which are used to represent multi-dimensional data.

Some graphs also have dual-Y sub-types, which have two Y-axes. Dual-Y graphs are useful for showing the following types of data:

Data of different measures (such as Sales on the Y1-axis and Profit on the Y2-axis)

Data of different scales (such as Region Sales on the Y1-axis and Percent of Total Sales on the Y2-axis).

4.6.4. Graph Types Described.

Bar graph: A graph that compares values using vertical bars. A single bar represents each value. A bar graph shows variation over a period or illustrates comparisons between values. The stacked sub-type shows each value's relationship to a whole.

Horizontal Bar graph: Identical to a bar graph except that the bars lie horizontally, rather than standing vertically. Horizontal bars place more emphasis on comparisons and less emphasis on time. The stacked sub-type shows each value's relationship to a whole.

Line graph: A graph that shows trends or changes in data at even intervals. Data is represented as a line that connects a series of data points. Although similar to an area graph, a line graph emphasizes trends.

Point graph: Similar to a line graph in that data is represented by points, however the data points are not connected by a line.

Area graph: A type of graph in which data is represented as a filled-in area.

Pie graph: A graph in which data is represented as sections of a circle, making the circle look like a sliced pie. A pie graph shows the proportion of parts to a whole. It is useful for emphasizing a significant element, such as the highest value. Note that a pie graph always displays only one data series, that is, one row or one column of data at a time.

Polar graph: A circular scatter graph. The circular shape allows you to present cyclical data and is especially useful for showing directional data.

Scatter graph: A graph with points scattered over the plot area. Each point is a value whose coordinates are specified by two numeric measures. A scatter graph shows relationships between two measures, for example Sales and Cost. A scatter graph is useful for comparing two measures that both have many values. All points are the same size, regardless of their value.

Bubble graph: Bubble graphs add another measure to the points of a scatter graph because the size of the bubble is significant. Each bubble is a value whose coordinates are specified by three numeric measures. A bubble graph shows relationships between three measures, for example Quarter, Sales, and Profit. The third measure determines the size of the bubble. A bubble graph is useful for comparing three measures that have many values.

Stock graph: A graph in which each data Marker typically shows three values, such as the high, low, and closing stock price. Stock graphs are useful for comparing the prices of different stocks or the stock price of an individual stock over time.

3D graph: A true three-dimensional graph, where you can see an X edge, a Y edge, and a Z edge. 3D graphs have a floor, a wall, and a background. There are four 3D graph sub-types: 3D Bar, 3D Cube, 3D Area, and 3D Surface. These types of 3D graphs are useful for showing trends or to compare values. Note, this graph type is not the same as one created using the 3D Effect checkbox. The 3D Effect checkbox allows you to add depth to any graph type.

4.6.4.1. Notes on Creating Graphs. To create meaningful graphs in Discoverer, you need to have the correct Worksheet configuration for the style of graph that you wish to use. This section contains advice on getting the best results when using graphs in Discoverer.

4.6.4.1.1. Creating Bubble Graphs. When you create Bubble Graphs, follow these guidelines:

You need at least three Items.

X Item- the Bubble's location on the X-axis.

Y Item- the Bubble's location on the Y-axis.

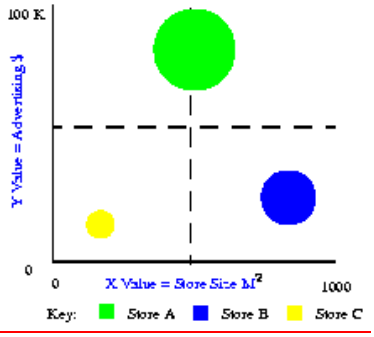
Z Item - the size of the Bubbles, (which should be positive numbers).

Figure 4.75. Example Data Configuration for a Bubble Graph.

Example Worksheet Data Configuration

Store	Advertising	Store Size	Sales
Store A	80000	500	900,000
Store B	30000	900	500,000
Store C	10000	100	100,000

Example Worksheet Bubble Graph



4.6.4.1.2. Creating Stock Charts. When you create **High-Low-Close Stock Graphs**, follow these guidelines:

You need at least three Items in the following order:

High price

Low price

Closing price

Stock values for High, Low, and Closing prices must appear on the same row or column series as groups of three.

To display data for more than one period, the data must be in multiples of three, such as three columns for period 1, three columns for period 2, and so on.

High-low-close stock graphs usually have only one series of data. The series should be the name of the stock whose prices you show in the graph.

If a high-low stock graph contains more that one series of data, and prices overlap, some stock Markers will obscure other stock Markers.

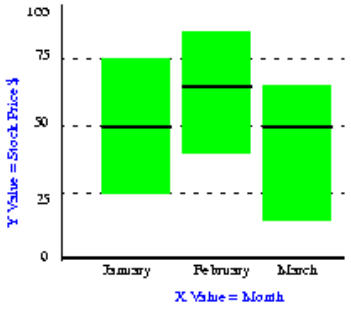
For example, Figure below shows a Worksheet configuration for charting a stock price over time, (January, February and March). Worksheet data arranged 'Series by row'.

Figure 4.76. Example Data Configuration for a High-Low Stock Chart.

Example Worksheet Data Configuration

January			February			March			Etc
High	Low	Closing	High	Low	Closing	High	Low	Closing	Etc
75	20	50	80	35	60	75	60	50	Etc

Example Worksheet Stock Chart



4.6.4.1.3. Creating Dual-Y Charts. When you create graphs with Dual-Y series, follow these guidelines:

The Dual-Y facility can be used with the following types of Graph:

Bar

Line

Area

Dual-Y Graphs require at least two series of data.

By default, the series are displayed in the following way:

(1) Series 1 is displayed on the Y1 axis.

(2) Series 2 is displayed on the Y2 axis.

(3) All subsequent series are displayed on the Y1 axis.

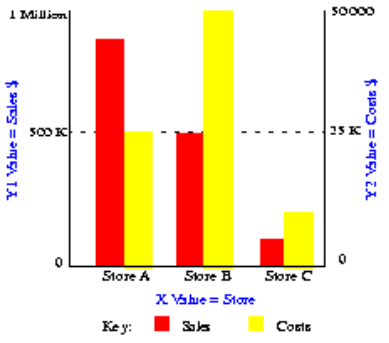
In Figure below, the Y1 axis represents Sales on the scale 0 to 1 Million. The Y2 axis represents Costs on the scale 0 to 50,000. The **Plot Area** tab of the **Graph Wizard** can be used to change, which Y-axis is used for each series.

Figure 4.77. Example Data Configuration for a Dual-Y Bar Graph.

Example Worksheet Data Configuration

Store	Sales $	Costs $
Store A	900,000	25,000
Store B	500,000	50,000
Store C	100,000	10,000

Example Worksheet Dual-Y Bar Graph

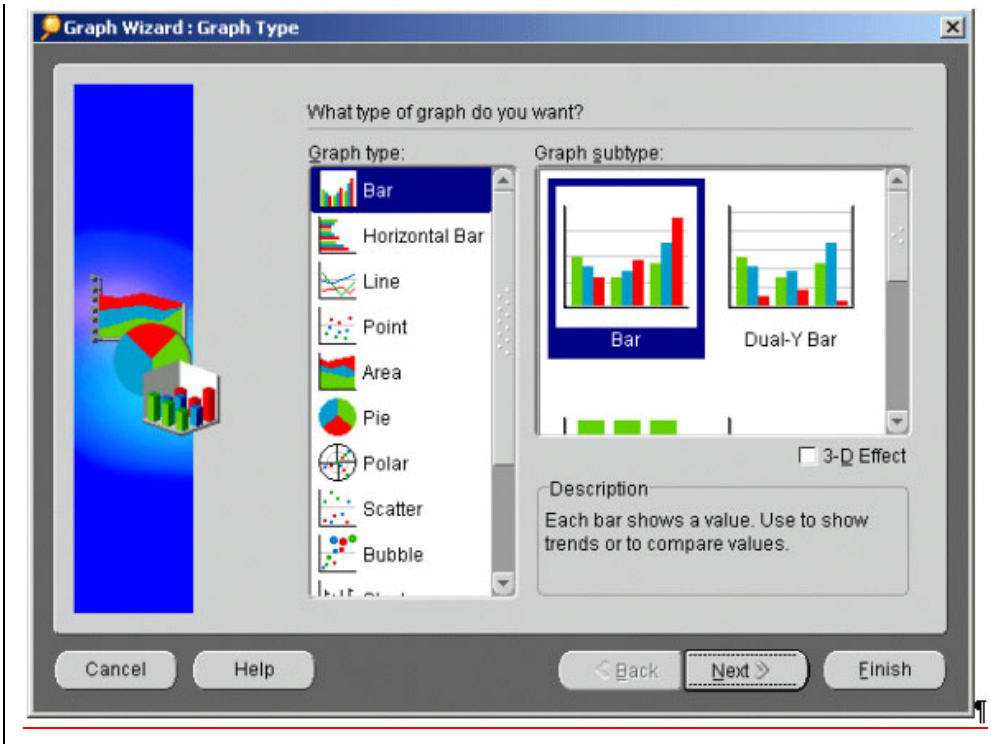


4.6.5. Creating a Graph. Discoverer provides the **Graph Wizard** to help you create a graph of your worksheet data. Each time you use the **Graph Wizard**, Discoverer saves your settings for the next graph you create. If at any time you want to use your previous settings for the remaining steps, simply click the **Finish** button.

To create a graph:

1. From the **Graph** menu, choose **New Graph**. The **Graph Wizard** appears.

Figure 4.78. Graph Wizard: Graph Type.

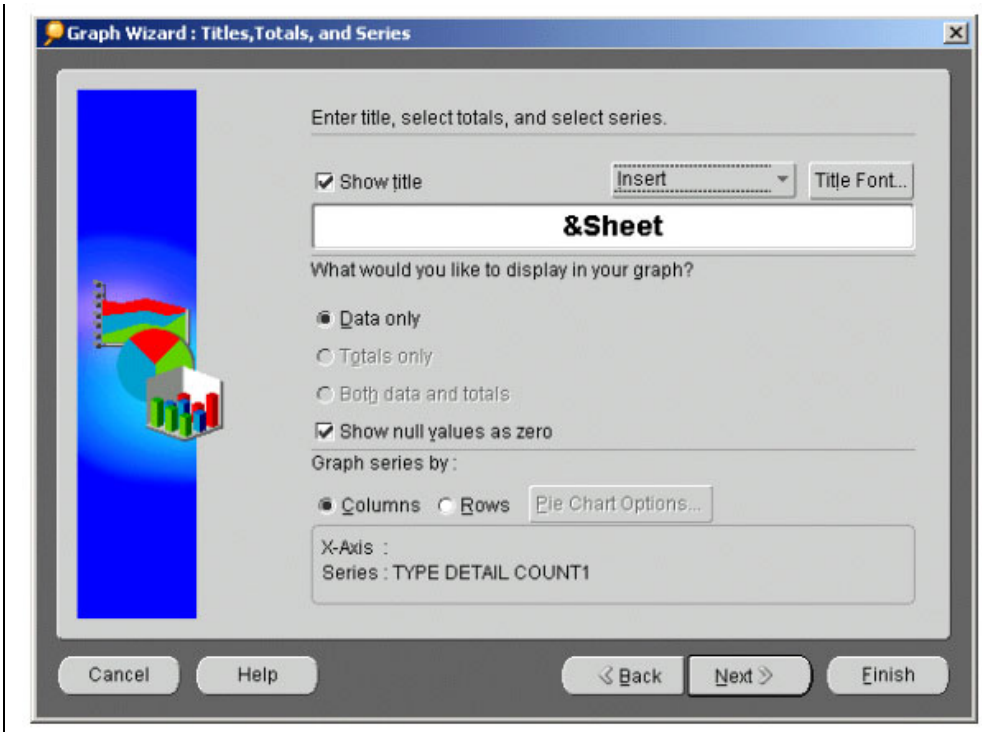


2. Choose the type of graph that you want by clicking an icon in the **Graph type** box on the left side. The corresponding graph sub-types appear in the **Graph sub-type** box on the right side. Choose a graph sub-type (for example, Bar or Dual-Y bar).

Description box at the bottom of the **Graph Wizard** describes the purpose of each graph type. If active, click the **3D Effect** checkbox to add depth to any graph type.

Click **Next**. The **Titles, Totals, and Layout** dialog appears:

Figure 4.79. Graph Wizard Titles, Totals, and Series.



3. If you want a title on your graph, put a checkmark in the **Show Title** checkbox. Type the title you want in the text box. If you want to add the date, time, or other worksheet information to the title, click the **Insert** drop-down menu and select the element you want to insert. Click the **Font** button to choose the font size and color for your title.

4. Answer the question, "What would you like to display in your graph?" by clicking one of the radio buttons:

Data Only to graph all the data point values of your worksheet but exclude any totals.

Totals Only to graph only the data in the Totals columns or rows of your worksheet.

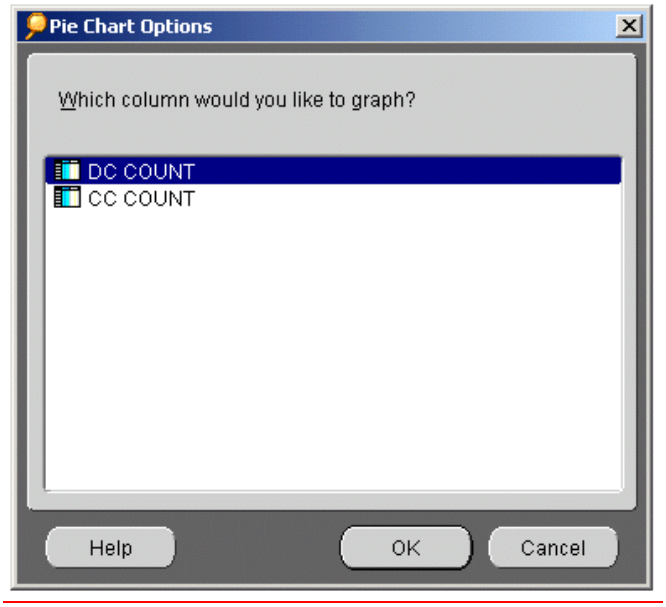
Both Data and Totals to graph everything in your worksheet, both the individual data points and their totals.

Put a checkmark in the **Show null values as zero** checkbox if you want a Marker with a zero value for all null values. Otherwise, null values are not represented in the graph.

5. Click a radio button to choose whether you want to graph a column or a row of data. Note that a Pie chart shows values as parts of a whole, so you can graph only one column or row at a time. If you are not creating a Pie chart, skip to step 7.

6. Click the **Pie Chart Options** button for additional controls. The **Pie Chart Options** dialog appears.

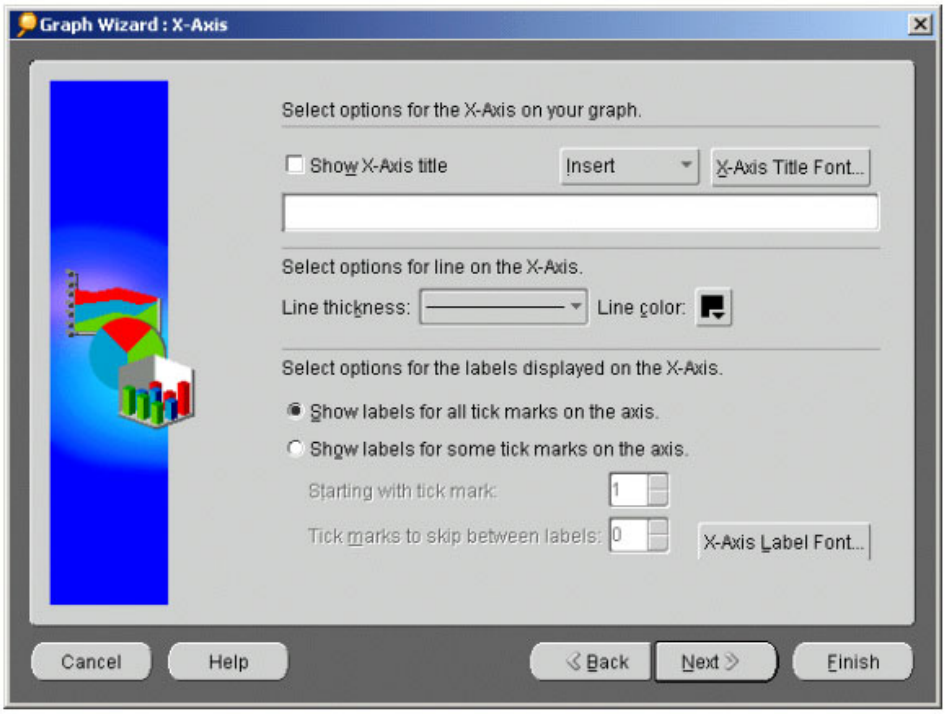
Figure 4.80. Pie Chart Options.



7. The **Pie Chart Options** dialog lists the columns or rows that you currently have in your worksheet. Click the one that you want to graph, and then click **OK** to return to the **Titles, Totals, and Layout** dialog.

8. Click **Next**. If you are creating a Pie chart, skip to step 17. If you are not creating a Pie Chart, the **X-Axis** dialog box appears.

Figure 4.81. Graph Wizard X - Axis.



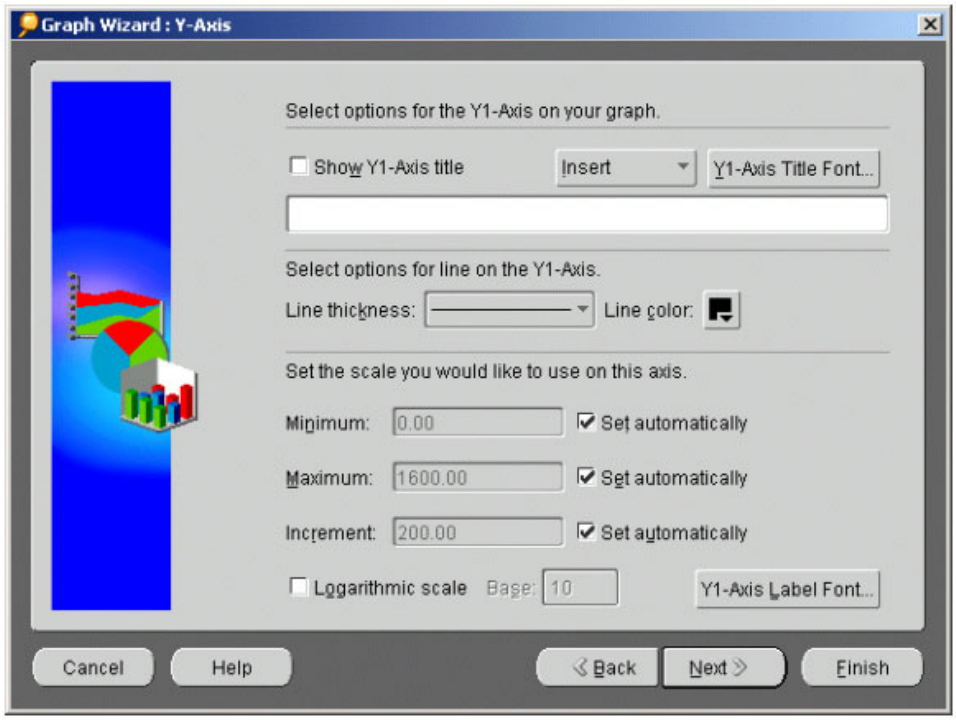
9. Like the graph itself, the X-axis can also have its own title. If you want a title on the X-axis, click the **Show X-Axis Title** checkbox. Type the title you want in the text box. If you want to add a data item name to the title, click the **Insert** drop-down menu and select the item that you want to insert. Click the **Axis Title Font** button to choose the font size and color for your X-axis title.

10. If you want a thicker line to indicate the X-axis, select the line thickness that you want from the **Line thickness** drop-down menu. Choose a color for the line from the **Color** palette.

11. If you also want a label for the tick marks on the X-axis, click a radio button and select how often you want labels to appear. Click the **Axis Label Font** button to choose a font size and color for labels.

12. Click the **Next** button. **The Y-Axis** dialog box appears.

Figure 4.82. Graph Wizard Y-Axis.



13, Like the X-axis, the Y1-axis can also have its own title. If you want a title on the Y1-axis, click the **Show Y1-Axis Title** checkbox. Type the title you want in the text box. If you want to add the name of the data item to the title, click the **Insert** drop-down menu and select the item that you want to insert. Click the **Axis Title Font** button to choose the font size and color for your Y1-axis title.

14. If you want a thicker line to indicate the Y1-axis, select the line thickness that you want from the **Line thickness** drop-down menu. Choose a color for the line from the **Color** palette.

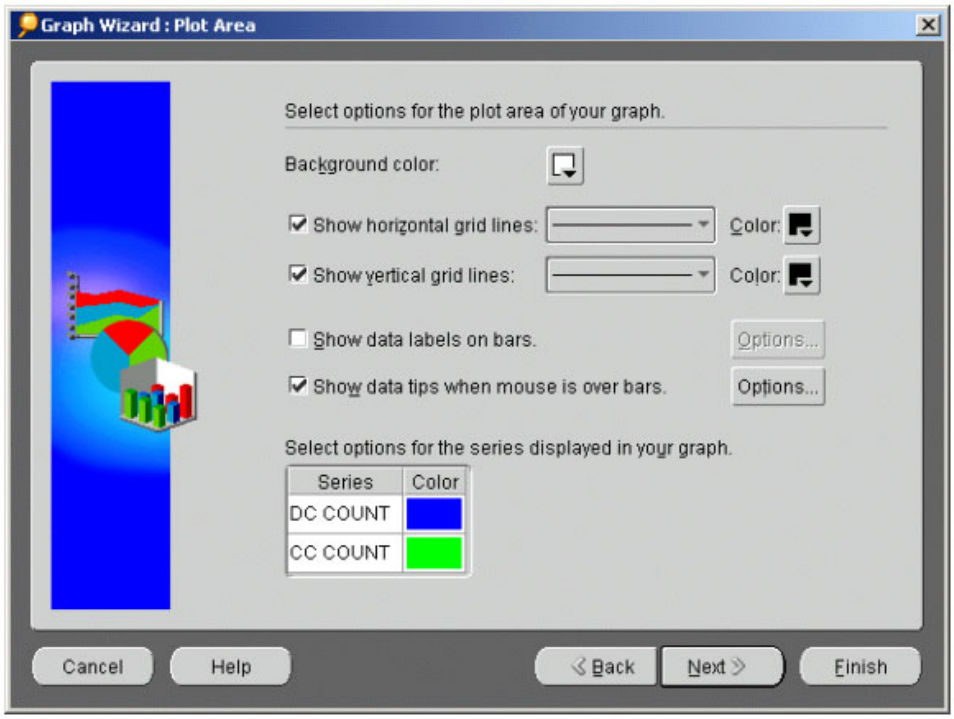
15. Discoverer will automatically set the scale for your Y1-axis data by measuring the lowest and highest values. However, if you want to choose your own scale, uncheck the **Set Automatically** checkboxes, and then type the scales that you want for your data, for example, Revenues in Thousands from 0 to 60 in increments of 10. Or check the **Logarithmic scale** checkbox, and then choose a Log base (example, log 10) from the drop-down menu.

16. Click the **Axis Label Font** button to choose a font size and color for the axis labels.

17. Click the **Next** button. If you are creating a Dual-Y graph, the **Y2-Axis** dialog appears. Repeat steps 12 through 16 for the second Y-axis. Otherwise, continue to step 18.

18. **Plot Area** dialog appears. Do any of the following:

Figure 4.83. Graph Wizard: Plot Area.



Click the color palette icon to choose a background color. Click the Horizontal and Vertical gridlines checkboxes, and then choose a line width and color for each.

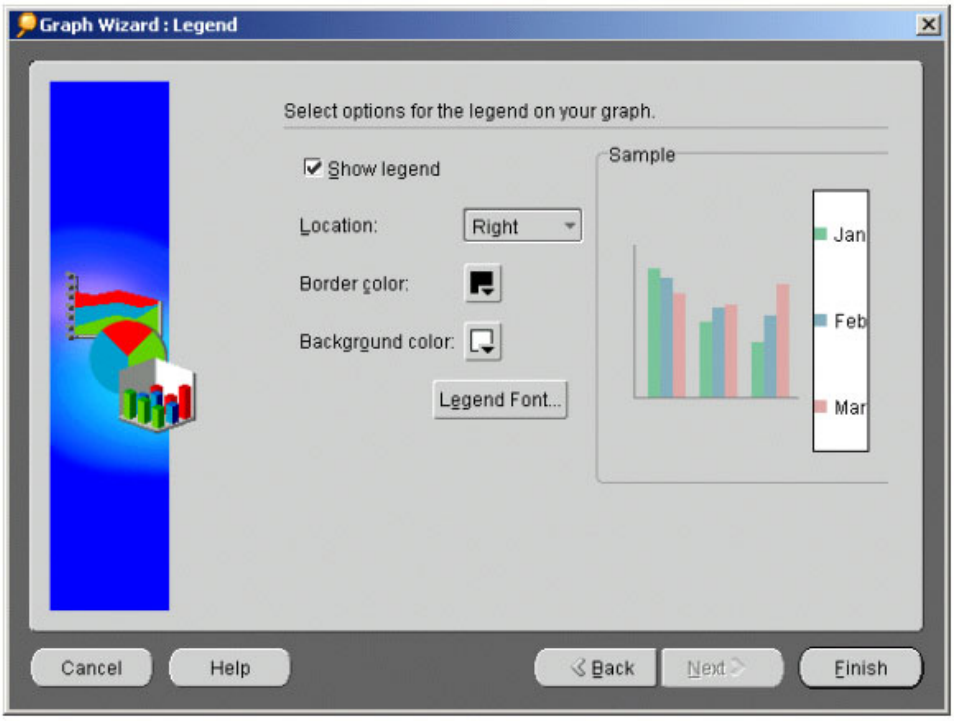
Insert a checkmark to add labels for data Markers. To decide whether the label should appear on top of a Marker or inside a Marker (for example, on top of a bar or inside a bar), click the **Options** button next to this selection.

Insert a checkmark to add text that pops-up whenever you hover the mouse over a data Marker. Click the **Options** button next to this selection to decide what text to display in the pop-up.

Select options, such as color, for series (rows or columns from your worksheet) that are displayed in your graph. For a dual-Y graph, select which axis to use for each series.

19. Click the **Next** button. The **Legend** dialog appears.

Figure 4.84. Graph Wizard: Legend.



20. If you want to show a Legend on your graph, click the **Show legend** checkbox. Choose where you want to position the legend on the graph from the **Location** drop-down menu. Select a border color and background color from their color palettes. Click the **Legend Font** button to choose a font size and color for text that appears in your legend.

NOTE:

Once you have created your graph, you can reposition the legend by dragging it with the cursor**.**

21. To change any of your choices, click the **Back** button until you return to the dialog that you want. When you are ready to create the graph, click the **Finish** button. After a short delay, the graph appears. To position the graph, see Positioning Your Graph with Your Worksheet.

4.6.6. Choosing Font Options. **Font Options dialog** is used to set the font style for the various components of your graph. You can call this dialog from the following Discoverer dialog boxes, (see example screen shot of the **Title Font** dialog below).

Table 4.3. Font Options Dialog Box.

Discoverer Dialog Box	**Button Option Used to Call the Font Dialog Box**
Graph Wizard: Titles, Totals,	Title Font…

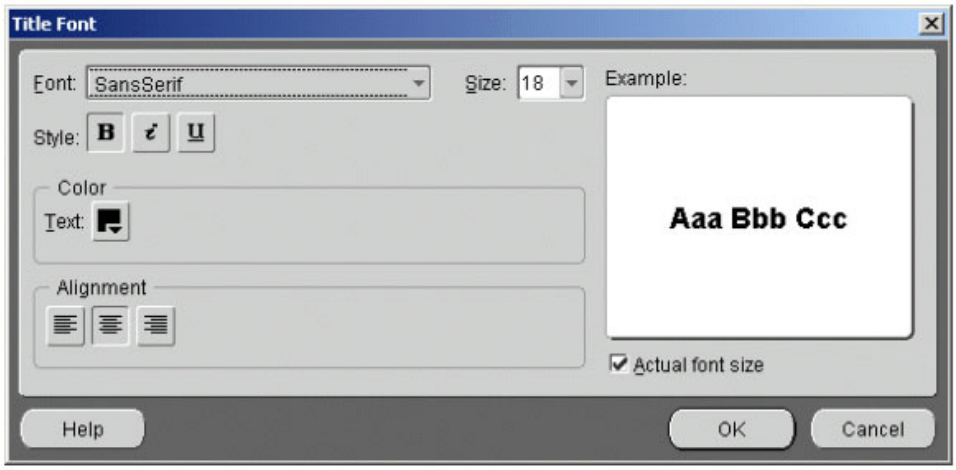
& Layout	
Graph Wizard: X-Axis	Axis Title Font
Graph Wizard: X-Axis	Axis Label Font
Graph Wizard: Y1-Axis	Axis Title Font
Graph Wizard: Y1-Axis	Axis Label Font

To set font options:

1. Select a font style from the **Font** drop-down menu. Select a font size from the **Size** drop down menu. Click any combination of **Style** buttons for bold, italic, and underlined styles. Select a color for your text from the **Text** color palette.

2. Also, click one of the **Alignment** buttons to align your text to the left, center, or right. The **Example** area on the right shows you how your text will appear in your graph. (Click the **Actual font size** checkbox to see how large the text will look on your graph.) Click **OK** to return to the previous dialog.

Figure 4.85. Title Font Dialog Box.



4.6.7. Positioning Your Graph With Your Worksheet. Positioning the graph with your worksheet affects how they appear together on screen. Positioning the graph does not affect the order that the worksheet and graph print.

To position your graph

1. From the **Graph** menu, choose **Display Graph**.
2. From the **Display Graph** sub-menu, click one of the following:

   Separate Window to display the graph in a window that floats above the worksheet

window. You can move the graph window to any location on your screen by dragging it with the mouse.

Right of Data to display the graph in a window that is connected to the right side of the worksheet window.

Left of Data to display the graph in a window that is connected to the left side of the worksheet window.

Above Data to display the graph in a window that is connected to the top of the worksheet window.

Below Data to display the graph in a window that is connected to the bottom of the worksheet window.

Hide/Unhide Graph to display the graph or hide the graph. The Hide option does not delete the graph.

3. Click **Fit to window** if your graph is too large to fit completely inside its windowpanes without scroll bars. The graph resizes so that it is completely visible inside its window.

4.6.8. Using the Graph Toolbar. When working with graphs, you can use the Graph Toolbar to quickly make cosmetic changes to the look of your graphs without using the Graph Wizard. For example, you can change fonts, colors, and text alignment.

4.6.9. Saving Your Graph. When you save a worksheet, Discoverer saves the graph automatically for you as part of the worksheet. If the data in your worksheet changes, the graph updates automatically. Any changes you make to the graph are also saved automatically when you save the worksheet.

4.6.10. Deleting Your Graph.

To delete your graph

1. From the **Graph** menu, choose **Delete Graph**. A warning message appears.
2. Click **Yes** to delete the graph.

4.7. Analyzing Data. This chapter explains how to find and arrange the data that you want to analyze.

Topics include:

Pivoting data

Drilling into and out of the data's details

Sorting data

Adding Calculations to data

Totaling Data

Finding Percentages

4.7.1. Pivoting Data.

Pivoting organizes data by moving items from the main body of a table worksheet to the page

axis. On a cross tab worksheet, you have even more control over the elements you can pivot. For example, you can move data items from the main body of the cross tab worksheet to the page axis, side axis, or top axis.

Laying out data on a table or cross tab organizes it so you can easily compare results side by side, spot trends when you see progressions, track progress over weeks, months and years, and so on. In other words, how the data is arranged is an important aid to analysis because it reveals data relationships that may not be apparent.

One way to think about pivoting data is to visualize the data plotted on a graph, and then switching data from the x-axis to the y-axis.

4.7.1.1. Pivoting Data on a Table.

To pivot an item on a table:

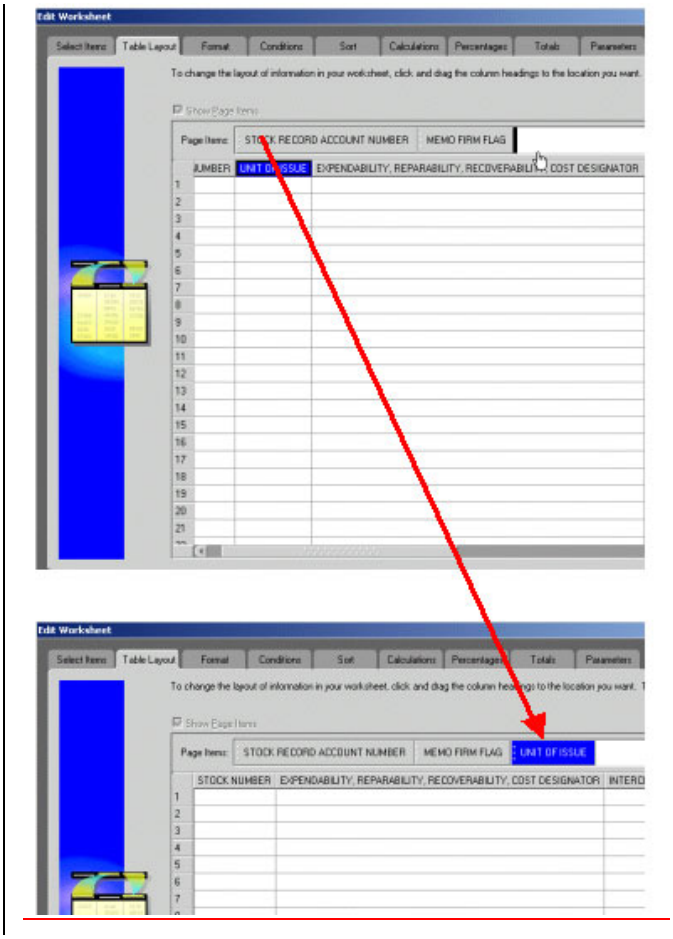
1. Open the table with the data you want to pivot.

2.From the menu, choose **Sheet**, and then **Table Layout, or click the Layout icon on the toolbar.** The **Edit Sheet** dialog appears with the **Table Layout** tab selected. The layout shows the items on the table and their current positions on the table.

3. Select the column to pivot. You can pivot from the page axis to the table or vice versa.

4. Drag the column to its new location, represented by a black bar, and release the mouse button. The following example shows how to pivot the Unit of Issue column to the Page Axis.

Figure 4.86. Pivoting Items on a Table.

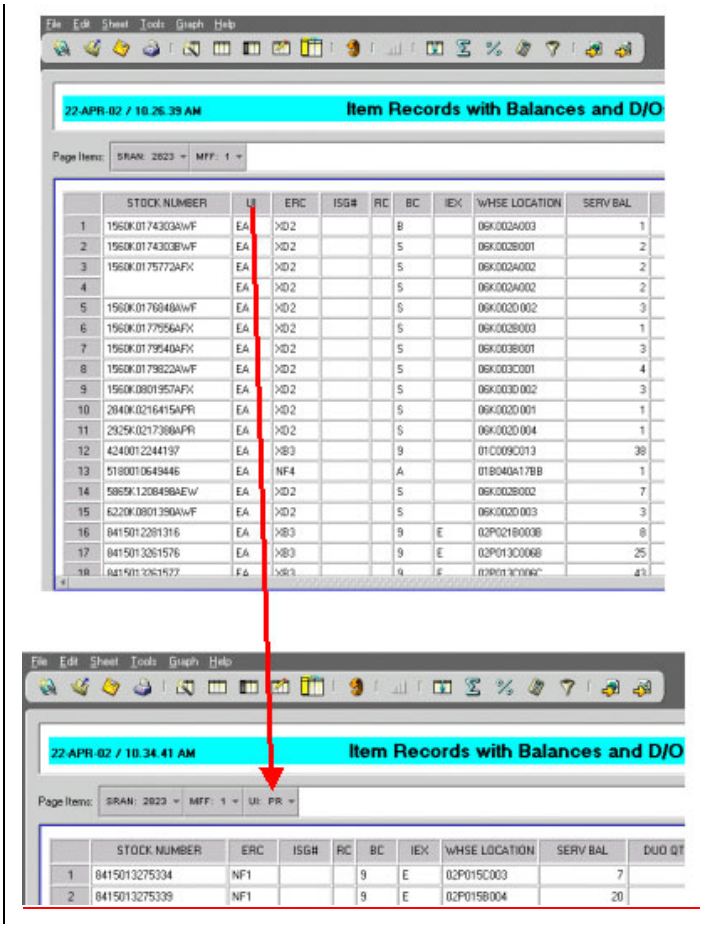


Unit of Issue column moves to the Page Axis.

5. Click **OK**.

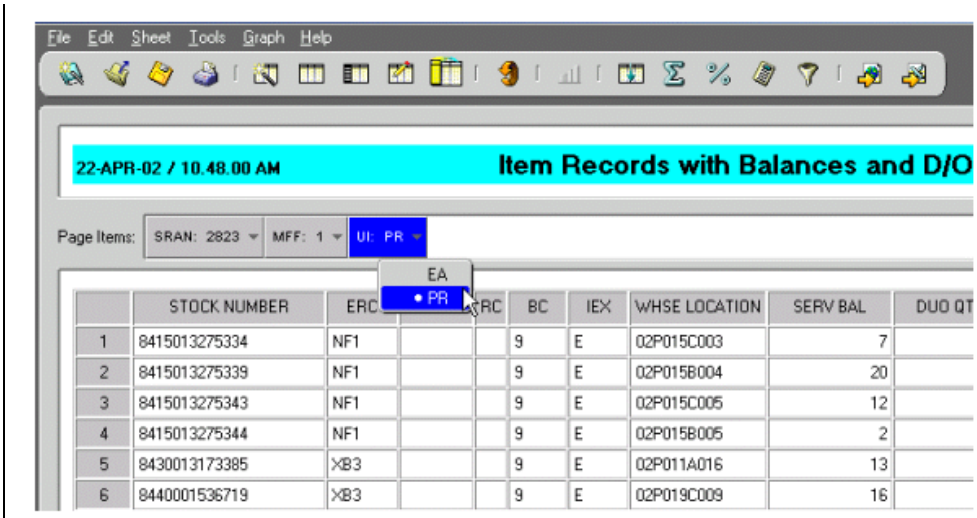
The Unit of Issue column moves to the Page Axis on the Worksheet. The following example shows what the worksheet looks like before and after pivoting the Unit of Issue item to the page axis.

Figure 4.87. Worksheets after Pivoting Data on a Table.



As you can see, putting the Unit of Issue on the Page axis means that only one Unit of Issue at a time appears on each page of the worksheet. To see the data from other Unit of Issues, select a new one from the Unit of Issue drop-down list, as shown in the following figure.

Figure 4.88. Page Item Drop-Down List.



1. Pivoting Data on a Cross-Tab. Because the data relationships on a cross tab depend on the intersection of the axis items, pivoting data from one axis to another creates a new set of data relationships. In addition, the new arrangement can add levels of data to an axis. For example, if the data on the side axis is for Function Number, pivoting the Reject Number data item to the side axis adds another level of data to that axis.

2. Use the same drag-and-drop process to move a data item from one axis to another on a cross tab, just as you do to move the columns on a table as shown above.

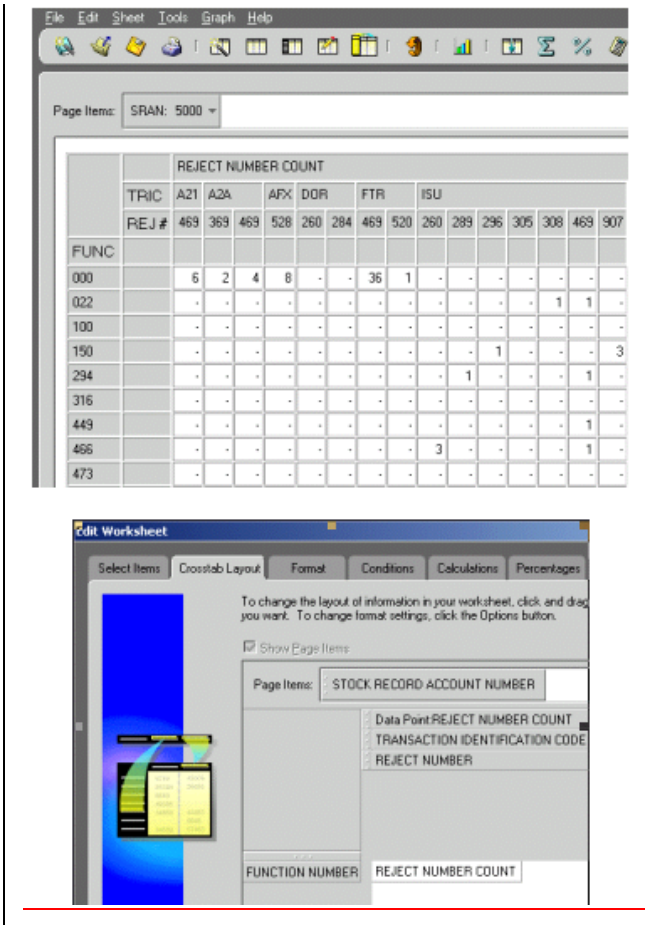
To pivot an item on a cross tab:

1. Open the cross tab with the data you want to rearrange.

2. From the menu, choose **Sheet**, and then **Cross tab Layout.** The **Edit Sheet** dialog appears with the **Cross tab Layout** tab selected.

The example below shows a Cross-tab Worksheet and its Cross tab Layout arrangement.

Figure 4.89. Example Cross Tab Worksheet & Layout.



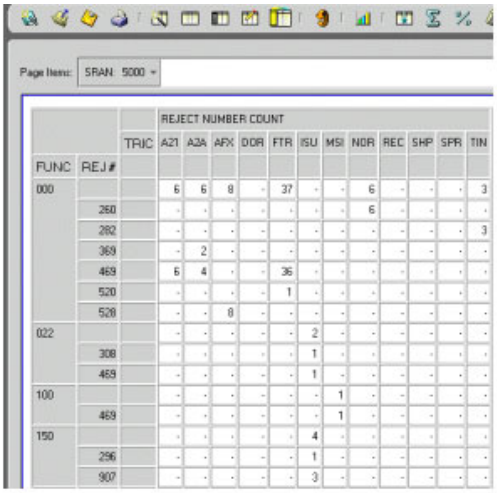
3. Select the item to pivot. You can pivot among the page axis, top axis, and side axis.

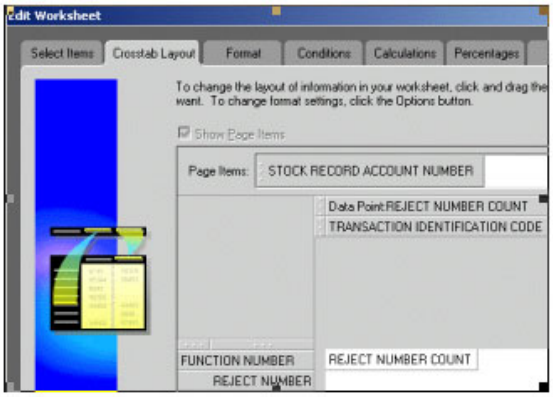
4. Drag the item to its new location, represented by a black bar, and release the mouse button.

5. Click **OK**.

In the example below, the Reject Number Item has been pivoted to the left-hand axis You can then make more direct comparisons between types of Rejects for each Function as they appear on the same axis.

Figure 4.90. Another Example, Cross Tab Worksheet & Layout.





As you can see, pivoting items on a cross tab provides you a powerful means to analyze the data.

4.7.1.3. Duplicating Tables and Cross Tabs. Duplicating tables and cross tabs provides a quick, easy way to present still more perspectives on the data. You might, for example, want to duplicate an existing table so that you can use the analytical properties offered by pivoting on a cross tab layout or vice versa.

To duplicate a cross tab as a table, or vice versa:

1. Open the worksheet that you want to duplicate.

2. From the menu choose **Sheet**, and then **Duplicate a Table** or **Sheet**, and then **Duplicate as Cross tab.** The dialog box for duplicating the table or cross tab appears.

The dialog box appears with the **Table Layout** tab or **Cross Tab Layout** tab selected depending on the duplication you're doing.

3. Indicate which items you want to display in the new table or cross tab.

Show Page Items--show/hide the page items box on the table or cross tab. If page items already exist for the worksheet, Discoverer disables this option and shows the page items portion of the worksheet.

4. Arrange the columns and page items so the duplicated table or cross tab appears as you want it.

5. Click **OK.**

4.7.2. Drilling Into and Out of Data.

Drilling helps, you easily locate related information in a worksheet. For example, suppose you're analyzing data showing activity at a quarterly (3 months) level. To see the data at a higher level, such as yearly, you can drill out of that information. Similarly, if you want to analyze the data at a monthly level, you can drill into that level.

Drilling out of data consolidates the data for a broader overview.

Drilling into data shows more details about the data. So, drill into data to analyze it at a finer level of detail, and drill out to get the larger picture.

Discoverer provides drill icons to quickly and easily drill up or down in a table or cross tab. You can use drill icons to drill through data in several ways.

Any data item that permits drilling has a drill icon on the worksheet. You can use the drill icon to drill up or down through the data structure. The drill icons are the small arrowheads next to the column headings.

4.7.2.1. To Drill Into or Out of Data.

To drill into or out of data from the table or cross tab:

1. Click the drill icon in the column or row with the data that you want to drill.

A drop-down menu appears for the item. For example, if you click the drill icon for City, the drop-down menu shows that you can drill down to the **Store Names** within the city or up to the Region in which the city is located.

2. From the drop-down menu, choose the level of data to which you want to drill up or down.

To drill down, select one of the levels below the current level. In the example you would select **Store Name**.

To drill back up, select one of the levels above the current level. In the example, you would select Region.

If you're drilling down, Discoverer finds the more detailed data specified by the drill and displays it on the worksheet.

If you're drilling up, Discoverer consolidates the data into a more concise worksheet.

4.7.2.2. Collapsing Drilled Items. If you select a data item to which you have already drilled down, you can collapse the levels back to their previous state.

To collapse drilled data:

1. Select a value above the current value from the drop-down menu.

NOTE:

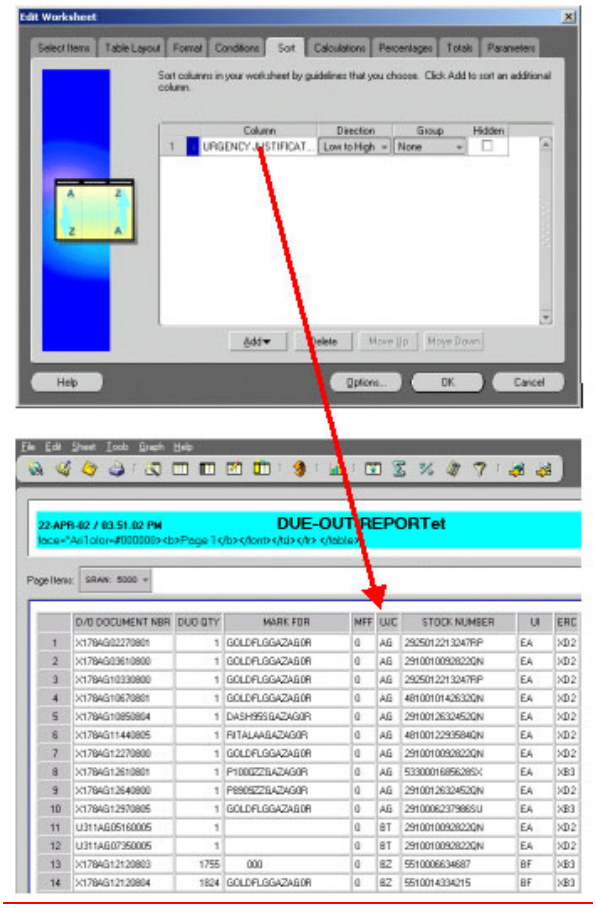
Data on a worksheet is often organized in the hierarchical sequence. Typically, you would drill, for example, from Region to City and then from City to **Store Name**. However, in some instances, you might want to drill to data out of that sequence. That is, you might want drill into the data from Region directly to Store Name while skipping the drill to City. This can also be thought of as skipping a hierarchical level. To drill to another level out of sequence, simply select the level you want from the drop-down menu.

4.7.3. Sorting Data. Sorting arranges text data in alphabetical order and numeric data in numerical order. Creating an ordered list of stock numbers, exception coded items, or product part numbers are typical uses of sorting. However, sorting is also helpful for analyzing data. For example, sorting inventory data from most accurate to least accurate shows potential problem areas within an account. In either case, you can sort the data from Low to High--which is A to Z or 1 to 10, or High to Low--Z to A or 10 to 1.

4.7.3.1. Simple table sorting. Use the **Sort** dialog to select the data to sort and the sort order.

In the following example, the primary sorted data is Urgency of Justification Code (UJC), which is sorted alphabetically. UJC is sorted Lo to Hi, which for text data is alphabetical from A to Z.

Figure 4.91. Example of Simple Table Sort.

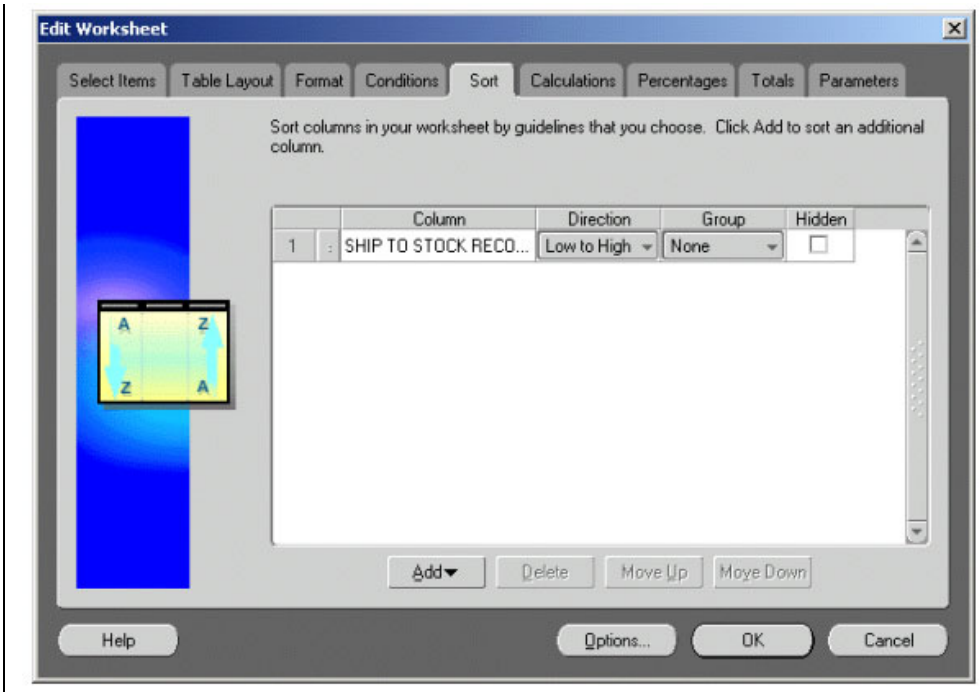


To sort a single column of data on a table:

1. Open the table with the data you want to sort.
2. From the menu, choose **Tools**, and then **Sort** or click the sort icon on the tool bar.

Sort Table dialog box appears. It shows the sorting options currently selected for the table.

Figure 4.92. Sort Dialog Box.



3. Click the **Add** button and choose the data item from the drop-down list that you want to use for sorting the data. The item is added to the Column.

4. Click the **Directions** drop-down list and select the sort order.

   Lo to Hi--A to Z for text; increasing for numbers (e.g., 1 to 10).

   Hi to Lo--Z to A for text; decreasing for numbers (e.g., 10 to 1).

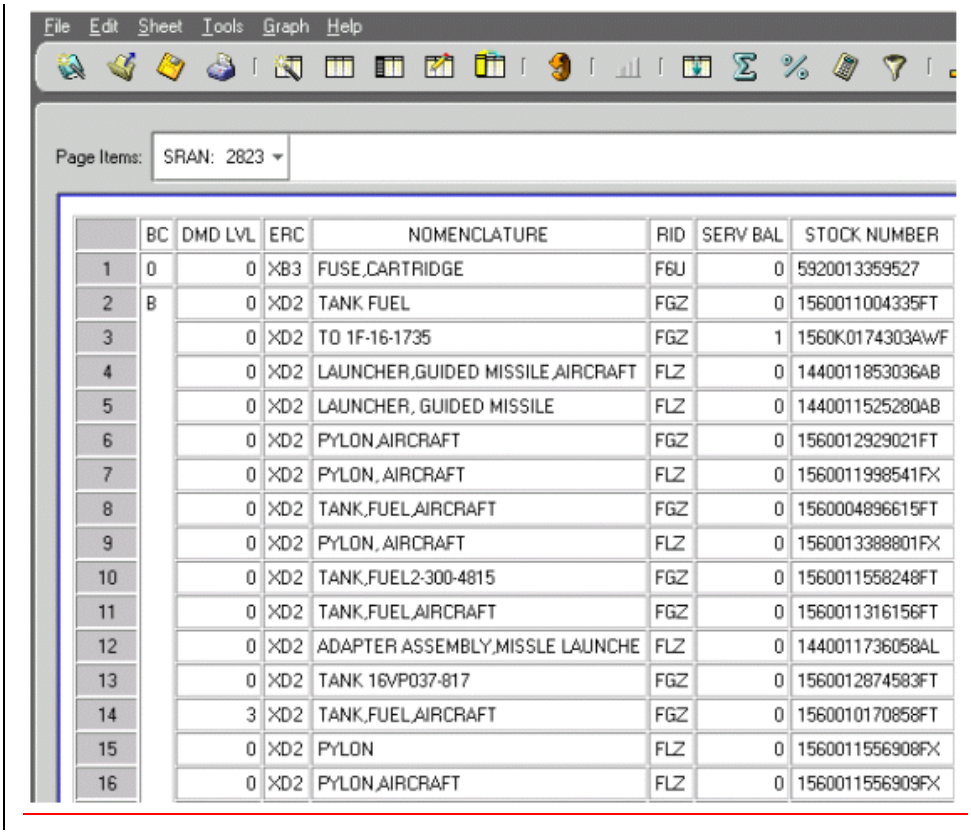
5. Click the **Group** drop-down list and select an option for group sorting. See the section, "Group Sorting" for details.

6. Click the **Hidden** box to hide the data item being used for sorting. For example, you could designate a sort order by UJC, but not show the UJC column.

7. Click **OK**. The data is sorted on the table.

4.7.3.2. Group Sorting. Group sorting displays each data value at the top row of a group. In the following figure, the table on the top is group sorted by Budget Code (BC) so the BC only appears at the first stock number where the BC changes. The table on the bottom is also sorted by BC, but is not group sorted. In this case, the BC appears next to each row of data.

Figure 4.93. Example of Group Sorting.



	BC	DMD LVL	ERC	NOMENCLATURE	RID	SERV BAL	STOCK NUMBER
1	0	0	XB3	FUSE,CARTRIDGE	F6U	0	5920013359527
2	B	0	XD2	TANK FUEL	FGZ	0	1560011004335FT
3		0	XD2	TO 1F-16-1735	FGZ	1	1560K0174303AWF
4		0	XD2	LAUNCHER,GUIDED MISSILE,AIRCRAFT	FLZ	0	1440011853036AB
5		0	XD2	LAUNCHER, GUIDED MISSILE	FLZ	0	1440011525280AB
6		0	XD2	PYLON,AIRCRAFT	FGZ	0	1560012929021FT
7		0	XD2	PYLON, AIRCRAFT	FLZ	0	1560011998541FX
8		0	XD2	TANK,FUEL,AIRCRAFT	FGZ	0	1560004896615FT
9		0	XD2	PYLON, AIRCRAFT	FLZ	0	1560013388801FX
10		0	XD2	TANK,FUEL2-300-4815	FGZ	0	1560011558248FT
11		0	XD2	TANK,FUEL,AIRCRAFT	FGZ	0	1560011316156FT
12		0	XD2	ADAPTER ASSEMBLY,MISSLE LAUNCHE	FLZ	0	1440011736058AL
13		0	XD2	TANK 16VP037-817	FGZ	0	1560012874583FT
14		3	XD2	TANK,FUEL,AIRCRAFT	FGZ	0	1560010170858FT
15		0	XD2	PYLON	FLZ	0	1560011556908FX
16		0	XD2	PYLON,AIRCRAFT	FLZ	0	1560011556909FX

One key reason to sort data by groups is to find subtotals for groups of numerical data. See section “Creating a New Total” for steps to add subtotals and totals to data sorted by groups.

Group sorting is also pertinent when finding percentages. When you specify percentages for numbers (for example, the percentage of stock numbers in each account with a particular ERRCD), the data is automatically group sorted for that section of data (e.g., the ERRCDs) so the percentages can be displayed properly. See the section “Creating a New Percentage” for more information.

NOTE:

Data can be group sorted on table worksheets, but not on cross tab worksheets. You can also sort data within the groups.

To sort data by groups:

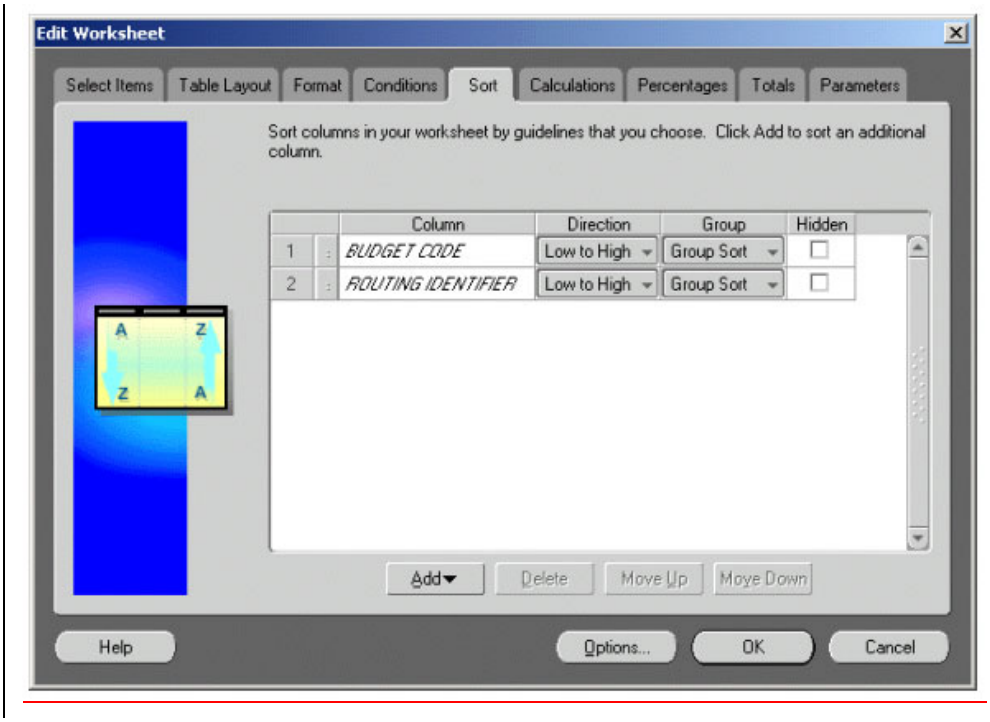
1. Open the table with the data you want to sort.
2. From the menu, choose **Tools**, and then **Sort** or click the sort icon on the tool bar.

Sort Table dialog box appears. It shows the sorting options currently selected for the table. If you do not want to sort by that data item, click its column handle and click **Delete**.

3. Click the **Add** button and choose the data item from the drop-down list that you want to use for sorting the data. The item is added to the Column.

4. To add a data item to be sorted within the Group, click the **Add** button again and add another data item. In the following example, the Budget Code (BC) is the group, and the Routing Identifier is the data item to be sorted with each BC.

Figure 4.94. Sort Dialog Box.



Columns with Group Sort selected always precede those with no group sorting (Group="None") to assure that the sorting is done correctly on the table. If you move a column without group sorting above a column with group sorting, the column you're moving is automatically set to group sort. Similarly, if you move a column with group sorting below a column without group sorting, the column on top is automatically set to group sort.

5. Select the **Direction** options for each column. The sort direction does not have to be the same for each column.

6. From the drop-down list in the **Group** column select a group sorting option.

None--data in the column is not grouped and is all sorted as a unit. Usually the last data item in a group sorting has the None option selected.

Group Sort--data is sorted within each group. The group name appears once at the beginning of the grouped data.

Page Break--data is sorted within each group. The group name appears once at the beginning of each new page.

7. Click **OK**. The data is sorted on the table.

4.7.3.3. About the Sort Order. Order of the columns on the **Sort** dialog is important because it affects how you can compare the data quickly based on the sorting. The order of the columns determines which data is sorted first, second, third, and so on. You can move the columns up and down to put them in the order that you want on the dialog box. To move a column up or down on the list, click the column's Handle (just to the right of the column number) to select it. The pointer becomes an up/down arrow indicating you can move the selected column up or down in the order.

4.7.3.4. Sorting Data on Cross Tabs. Because the location of data on a cross tab determines the relationship of one data item to another, sorting cross tab data is somewhat different from sorting tabular data. In particular, you normally want to maintain those data relationships while rearranging the data.

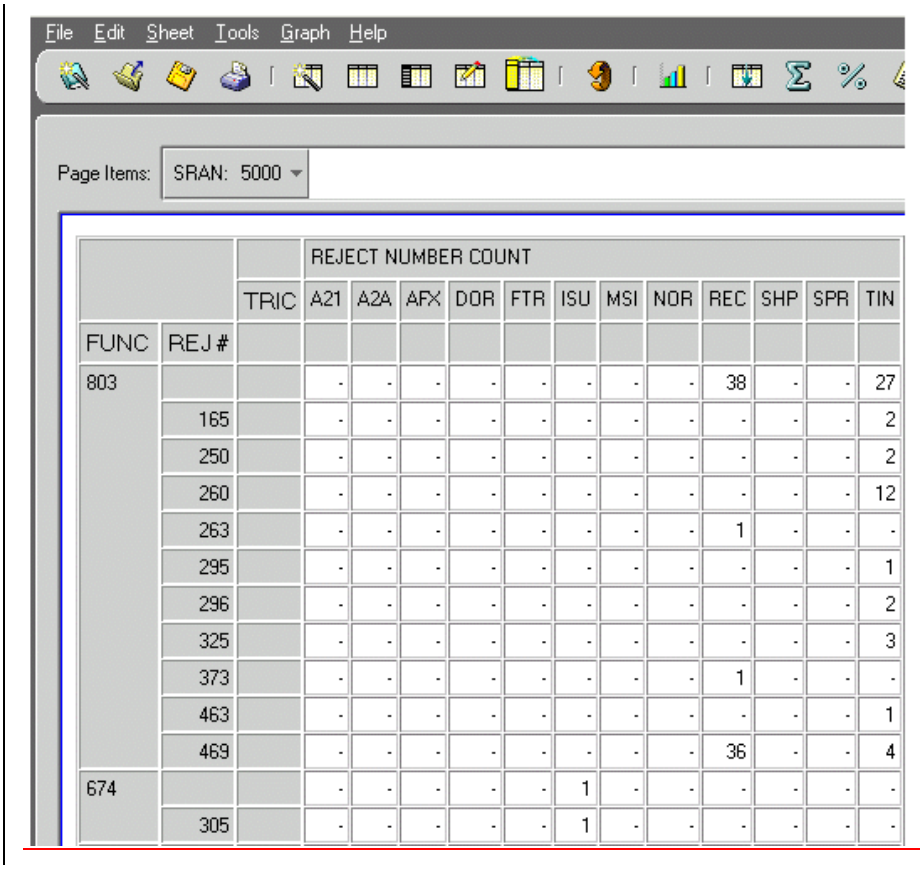
The way to maintain the data relationships is to sort data on the left axis relative to a specific column on the top axis. Or, sort data on the top axis relative to a specific row on the left axis. The **Sort Cross tab** dialog automatically sorts the data in that manner and maintains the data relationships.

NOTE:

Data on a cross tab layout is already sorted by default. Text items are automatically sorted alphabetically from A-Z and numbers are sorted from lowest to highest, but you can reverse the sort order.

The following example illustrates a cross tab sorted by Function Number (Z-A order) within TRIC Code (A-Z order).

Figure 4.95. Example of Cross Tab Sort.



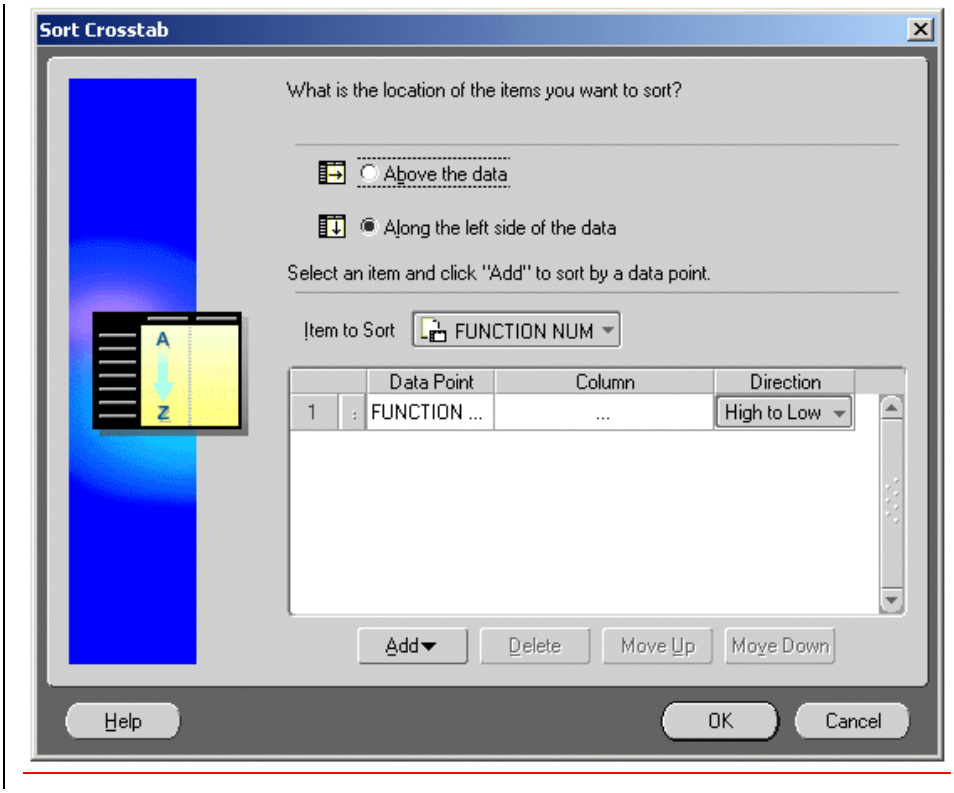
			REJECT NUMBER COUNT											
		TRIC	A21	A2A	AFX	DOR	FTR	ISU	MSI	NOR	REC	SHP	SPR	TIN
FUNC	REJ #													
803			-	-	-	-	-	-	-	-	38	-	-	27
	165		-	-	-	-	-	-	-	-	-	-	-	2
	250		-	-	-	-	-	-	-	-	-	-	-	2
	260		-	-	-	-	-	-	-	-	-	-	-	12
	263		-	-	-	-	-	-	-	-	1	-	-	-
	295		-	-	-	-	-	-	-	-	-	-	-	1
	296		-	-	-	-	-	-	-	-	-	-	-	2
	325		-	-	-	-	-	-	-	-	-	-	-	3
	373		-	-	-	-	-	-	-	-	1	-	-	-
	463		-	-	-	-	-	-	-	-	-	-	-	1
	469		-	-	-	-	-	-	-	-	36	-	-	4
674			-	-	-	-	-	1	-	-	-	-	-	-
	305		-	-	-	-	-	1	-	-	-	-	-	-

4.7.3.5. Sorting Cross Tabs on the Sort Cross Tab Dialog Box. The **Sort Cross Tab** dialog offers a full range of options for sorting **Cross Tab** worksheets.

To sort data on a cross tab:

1. Open the cross tab with the data you want to sort.
2. From the menu, choose **Tools**, and then **Sort.** The **Sort Cross tab** dialog appears.

Figure 4.96. Cross Tab Sort Dialog Box.



3. Select the location on the cross tab of the items you want to use to sort the data.

   Above the data--shows the data items on the top axis.

   Along left side of data--shows the data items on the left axis.

4. Click the drop-down list of **Item to Sort** and select the data item. The list includes the items for either the top axis or side axis depending on the selected sort location (above the data or along the left side).

5. Click the **Column/Row** drop-down list and select the specific column or row in the cross tab to use for sorting.

   Column drop-down list identifies the column that contains the data for sorting when sorting is based on data from the left side of the cross tab. The **Row** drop-down list identifies the row that contains the data for sorting when sorting is based on data from the top of the cross tab.

6. Click the **Direction** drop-down list and select the sort direction.

7. If you want to change the sort order, select one of the data items and click **Move U**p or **Move Down**.

8. Click **OK**. The data is sorted on the cross tab.

9. Repeat the process to add other sorting to the data.

NOTE:

After sorting a cross tab, the data on the top axis or left axis is reordered relative to the column or row you used for sorting.

4.7.3.6. Adding a Data Point. Adding a data point to a cross tab sorting enables you to sort the data in some other arrangement. Added data points must always be the first item for sorting. This is because sorting items by data points makes logical sense, but sorting data points by items does not.

To illustrate this concept, it makes sense to sort the City item by the Profit data point because each City has a Profit amount associated with it. However, it does not make sense to sort Profit by City because each profit value has only one city associated with it. It would be like trying to sort the profit amounts by "New York" or "Phoenix," which doesn't make logical sense.

You can add the data point two or more times. This is useful with duplicate data points. In the example, if two cities had exactly the same amount of profit, you could specify how to sort those two duplicated pieces of data (low to high or high to low). This type of "sorting within sorting" on a cross tab is helpful for text or other data likely to have duplicate values. For financial data or other variable numeric items, however, sorting within sorting is usually not necessary.

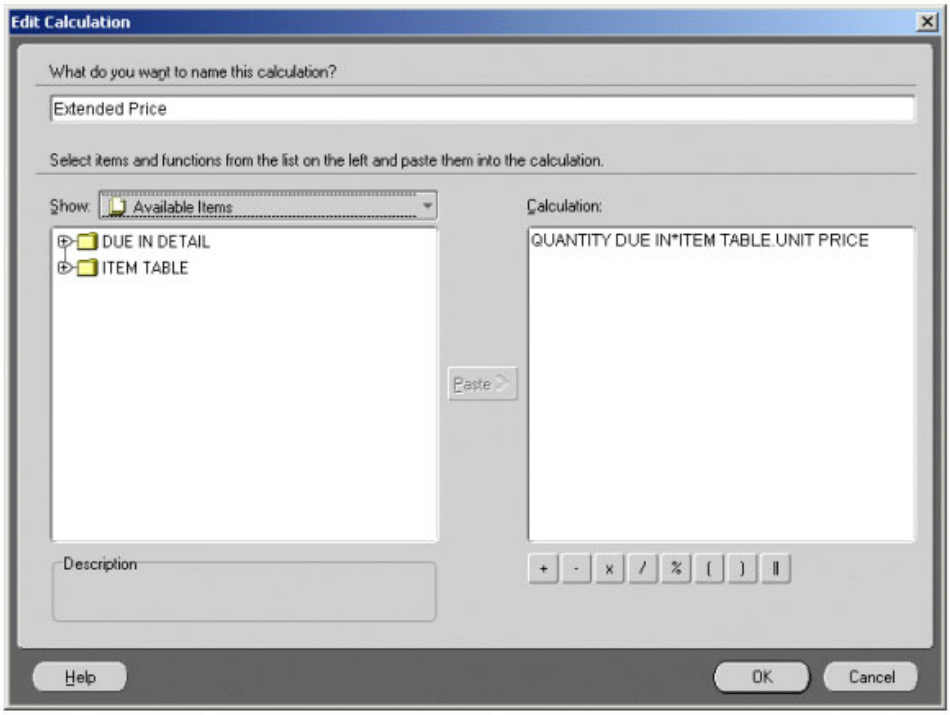
4.7.4. Calculating Data. Calculations can play an important part when analyzing data. Discoverer has a full range of common mathematical functions and operators to calculate results on your worksheets. Discoverer displays the results of calculations as new columns on a worksheet, or the calculations can be part of other calculations.

Below is an example of a simple calculation.

Example: Calculate the extended price of a requisition.

This example uses the Item Table.Unit Price item and multiplies it by the Due In Table. Quantity Due In to produce the Extended Price. The answer appears in a new column with a name you type on the **New Calculation** dialog. In this example, it is Extended Price.

Figure 4.97. Example of Edit Calculation Dialog Box.



Following figure shows the results of applying the calculation.

Figure 4.98. Display of Calculated Item.

	STOCK NUMBER	RID	ERC	QTY DUE IN	D/I REQ #	EXTENDED PRICE
1	6115004651044	DYK	ND4	1	72820777	$8,332.00
2	7520013576840	GSA	XB3	44	60510210	$288.20
3	5810012831395CA	DXK	ND4	1	11620079	$2,694.14
4	5810012831395CA	FPD	ND4	1	81339500	$2,694.14
5	5811011624184CE	DK9	NF4	2	72610007	$5,000.00
6	5811011624184CE	DYK	NF4	10	72820770	$25,000.00
7	5810013628618CA	DW3	ND4	2	62060061	$4,190.00
8	1005009459756	S9E	XB3	1	11929512	$50.31
9	6730P00PROJ	JBR	XB3	1	11000249	$250.00
10	4720013377291SX	S9C	XB3	4	10929500	$1,489.80
11	4720013377291SX	S9C	XB3	153	10939500	$56,984.85
12	1005011277510	FLZ	ND4	1	11310228	$2,653.00
13	5995013688144IY	S9G	XB3	1	11929503	$339.75
14	5811013013064CE	DYK	ND4	1	72820717	$2,253.36
15	5811013013064CE	DYK	ND4	1	72820721	$2,253.36

Not all calculations need to use Items or Functions as part of the calculation formula. You can type a formula directly into the **Calculation** box.

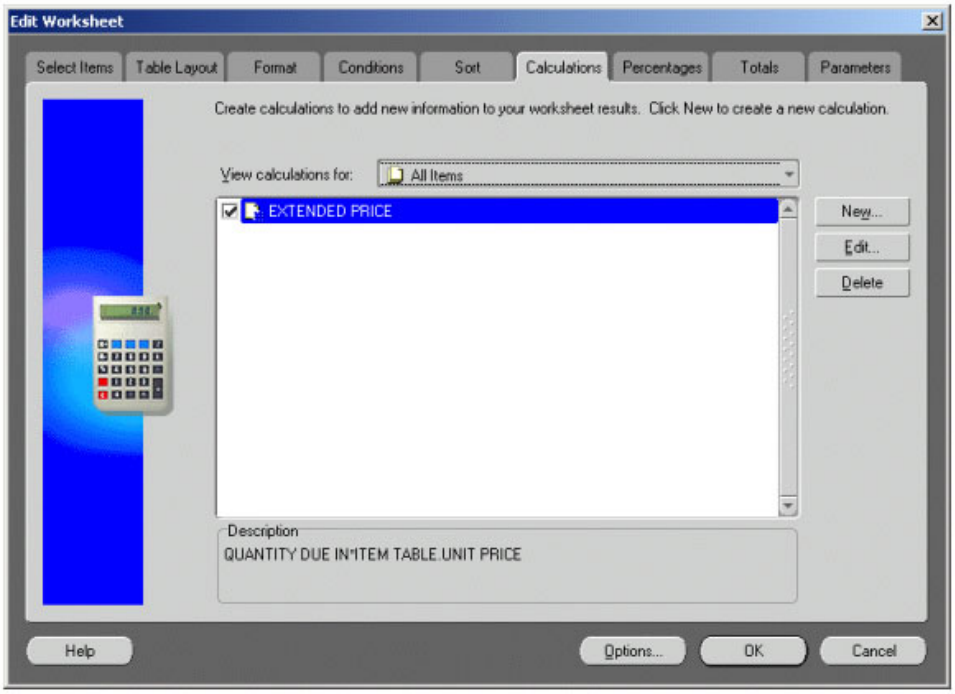
4.7.4.1. Creating and Editing Calculations. You use the **Calculations** dialog to create calculations.

To create or edit a calculation:

1. Open the worksheet on which you want to apply the calculation.

2. Choose **Tools**, and then **Calculations. The** Edit Worksheet dialog appears, open to the **Calculations** tab.

Figure 4.99. Edit Worksheet Dialog Box.



This dialog shows calculations already created for the worksheet. Check marked calculations are active and apply to the worksheet.

3. Click **New** or **Edit**. The **New** or **Edit Calculation** dialog appears.

4. Type a name for the calculation in the box at the top of the dialog. This name appears on the worksheet as the column header of the calculation results column.

5. Click the **Show** drop-down list to see the different expressions.

Functions--Lists a wide range of mathematical functions that you can apply to the formula.

Selected Items--Lists the items in the worksheet; this is helpful because you don't have to remember the name of an item in order to include it in a formula.

Available Items--Lists all the items available for the worksheet even if the items are not currently used on the worksheet.

Calculations--Lists the calculations defined for the worksheet in case you want to use an existing calculation as part of your new calculation.

Parameters--Lists the parameters defined for the worksheet.

6. Click each part of the expression that you want to add to the calculation and click Paste. The item or function moves to the Calculation text box. You can also drag from the box on the

left to the Calculation text box.

7. Click the operator (for example, + or -) button to add mathematical operations to the Calculation text box.

8. Continue to add items, functions, operators, and so forth until you complete your calculation expression.

9. Click **OK** to save the expression. The **Edit Worksheet** dialog appears and displays the name of the calculation you just created or edited.

10. To apply the calculation to your worksheet, make sure it has a checkmark in the box next to its name.

11. Click **OK**.

4.7.5. Totaling Numeric Data. When working with numeric information, you often need to see various summations of the data. Totals can sum rows and columns of numbers, find averages and standard deviation, compute subtotals and grand totals, and so on. When you add a Total to a worksheet, Discoverer automatically adds a column or row to the worksheet for the totals data.

In the example below, the Worksheet contains a sub-total for each DIFM Status Code and a grand total for all DIFM items.

Figure 4.100. Example of Totaled Data.

	STOCK NUMBER	ERC	ORG	QTY DUE IN	DIFM LOC	CURR STATUS	PRICE
201	1620014456131	XD2	230	1	ARJ	TOC	$5,229.45
202							Dollar Total for ERRCD XD2: $26,602.73
203	1670012363820MH	XF3	230	1	APS		$837.09
204	1670012363820MH		230	1	APS		$837.09
205	1670012363820MH		230	1	APS		$837.09
206	1670012363820MH		230	1	APS		$837.09
207	1670012363820MH		230	1	APS		$837.09
208	1670012363820MH		230	1	APS		$837.09
209	1670012363820MH		230	1	APS		$837.09
210	1670012363820MH		230	1	APS		$837.09
211	1670012363820MH		230	1	APS		$837.09
212							Dollar Total for ERRCD XF3: $7,533.81
213						Number of DIFM Items with Status Code TOC: 14	
214						Total Count of All DIFM Items: 188	

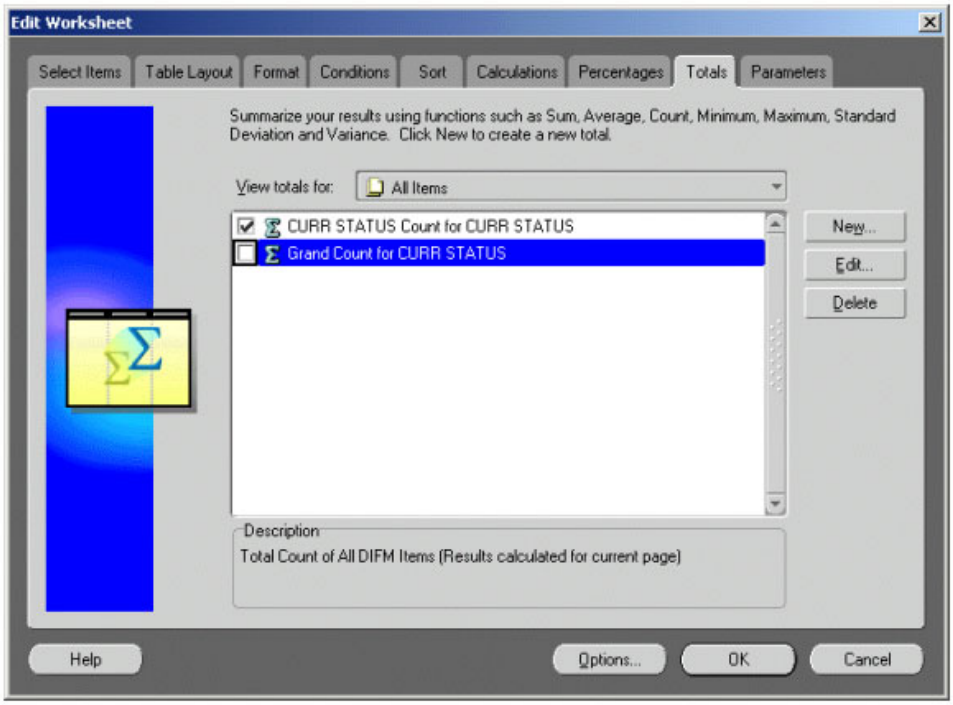
4.7.5.1. Displaying Existing Totals. You can define totals for a worksheet and then display them on the worksheet or not.

To display totals or sub-totals on a table or cross tab:

1. Open the worksheet to which you want to add a total.

2. From the menu, choose **Tools**, and then **Totals.** The **Edit Worksheet** dialog appears with the **Totals** tab selected. The list of totals shows all currently defined totals.

Figure 4.101. Edit Worksheet, Totals Tab.



3. Click the box in front of the Total definition so that a checkmark appears.

4. Click **OK**. Discoverer now computes the totals and displays them in the table or cross tab.

To remove totals from the data:

5. From the menu, choose **Tools**, and then **Totals.** The **Totals** dialog appears.

6. Click the checkmark box (es) to remove the checkmark.

7. Click **OK**. Discoverer removes the totals from the table or cross tab.

4.7.5.2. Creating a New Total. Creating a new totals definition has three steps:

Select the totals to calculate.

Select the type of total and where to place it in the table or cross tab.

Create a label for the totals column or row.

To create a new totals definition:

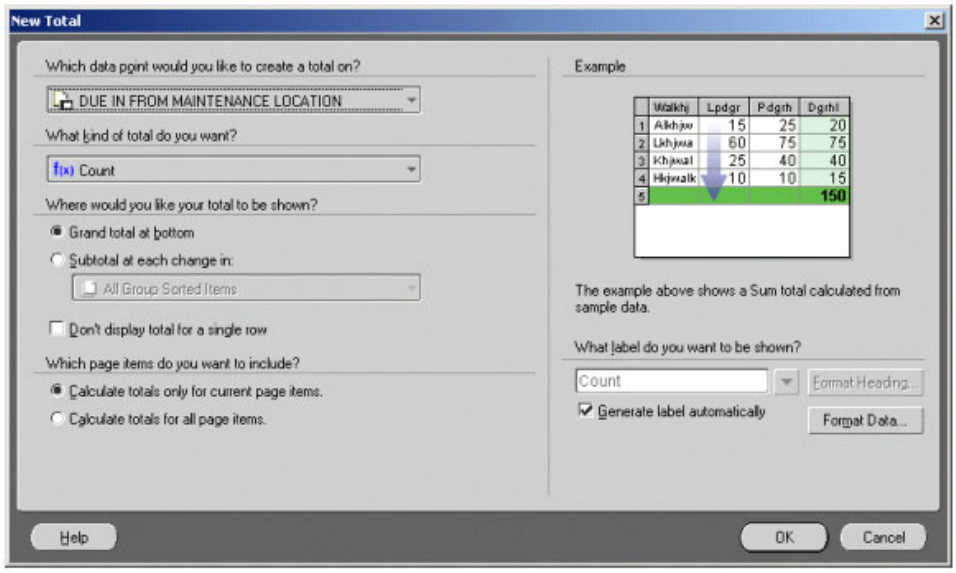
1. Open the worksheet to which you want to add a total definition.

2. From the menu, choose **Tools**, and then **Totals.** The **Edit Sheet** dialog appears with the

Totals tab selected.

3. Click the **New** button. The **New Total** dialog appears.

Figure 4.102. New Total Dialog Box.



4. Click the data point drop-down list and select the data point to use for totaling data, for example, Due In From Maintenance Location.

You can also create totals for all the data points on the worksheet by selecting **All Data Points** from the drop-down list.

5. Click the drop-down list for the kind of total you want and select the calculation to use for totaling data.

The options are:

Sum--Adds all the values.

Average--Adds all the values and divides by the number of values.

Average Distinct--Adds all the unique values and divides by that number of values. Duplicated values are not included. For example, if a set of values includes 3, 3, 4, 5, 5, 6, and 7, the calculation of the distinct average is 3+4+5+6+7 divided by 5.The duplicate values of 3 and 5 are not included.

Count--Counts the total number of values.

Count Distinct--Counts the number of unique values.

Minimum--Finds the lowest value.

Maximum--Finds the highest value.

Standard Deviation--Calculates the standard deviation. Standard deviation is the square root of the variance of the values.

Standard Deviation Distinct--Calculates the standard deviation, but only using unique, unduplicated values.

Sum Distinct--Adds the values, but only using unique, unduplicated values. For example, the sum distinct of 3, 3, 4, 5 is 3+4+5=12. The duplicate value of 3 is not included.

Variance--Calculates the variance. Variance is the sum of the squares of the differences between each value and the arithmetic mean, all divided by the number of values.

Variance Distinct--Calculates the variance, but only using unique, unduplicated values.

Percentage of Grand--Calculates the Grand Total of the row or column, and then finds the percentage of the current column or row of the Grand Total.

Percentage of Grand Distinct--Calculates the percentage of the Grand Total of the row or column, but only using unique, unduplicated values.

6. Select where you want the total to be shown.

Grand total at bottom--Calculates the Grand Total for a column and places it after the last row of the table or cross tab.

Grand total on right (cross tab only)--Calculates the Grand Total for a row and displays it in a column on the right side of the cross tab.

Subtotal at each change in--click the drop-down arrow to select the data item to use for the totals. For example, if you sort the data by DIFM Status Code, and want to see number of details by DIFM Status Code, select DIFM Status Code as the data item. Then, Discoverer automatically displays the total count for each status code on a separate line.

All Group Sorted Items--displays totals for items set to be group sorted. For example, if the table contains two columns of numeric data set to be group sorted, subtotals are displayed for both columns. Inappropriate data points for the type of total are not displayed.

For example, Region is a set of data points but summing Region by its data points doesn't make sense--it would be like trying to add "Central" to "East". In this case, Regions are not summed even if it is a group-sorted item.

A specific numeric data point (such as Price, in the example)--displays totals for the selected set of data points.

A non-numeric data point (such as DIFM Status Code, in the example)--when you select a non-numeric set of data points, the options for the totals in the first drop-down list are limited to only those options that apply to non-numeric data points. For example, if you select DIFM Status Code, sum of a status code does not make sense. The only totals that make sense for non-numeric data points are Count, Count Distinct, Maximum, and Minimum.

Don't display subtotal for a single row--If the group of data consists of a single row, do not display a subtotal for it (the row's data value and subtotal are the same).

7. Click one of the options for the current page or all the pages of the worksheet.

8. Click the option to generate the label automatically if you want Discoverer to generate a label based on the data items being totaled.

You can click the drop-down list for labels and choose additional options for the title from it. The options from the drop-down list produce labels that can change as the data changes by adding text codes (such as "&Item" and "&Value") to the label. In the actual labels in the table or cross tab, the ampersand (&) will not appear, and appropriate names from the table or cross tab will be inserted in place of the words "Item" or "Value".

This table shows some examples.

Table 4.4. Examples.

Option	Example	Sample Label
Insert Item Name	Total Count of &Item	Total Count of Stock Number
Insert Data Point Name	Total Float &Data	Total Float Price
Insert Value	Number of DIFM Items with Status Code &Value	Number of DIFM Items with Status Code AWPl

If the total calculates for all data points (as selected at the top of the dialog), the labels can appear for each appropriate name. For example, when totaling two items, and you select Insert Item Name (&Name), labels for both item names appear in the data or cross tab.

To remove options from the labels, click in the label text in the dialog and edit it as you would regular text.

9. Click **OK** when you're finished creating the Total.

4.7.5.3. Editing a Totals Definition.

To edit a totals definition:

1. Open the worksheet with the Total you want to edit.

2. From the menu, choose **Tools**, and then **Totals.** The Edit Sheet dialog appears with the Totals tab selected.

3. Select the definition you want to edit in the **Totals** dialog.

4. Click the **Edit** button. The **Total** dialog appears.

5. Make the changes you want.

6. Click **OK**. The totals definition is now edited.

4.7.6. Finding Percentages. Calculating percentages of numbers is a typical data analysis task. Using the Percentages feature, you specify the data to use to calculate a percentage as well as

the value to use to represent the percentage (Grand Total, Subtotal, and so on).

NOTE:

Due to rounding of data, percentages might not add exactly to 100.

In the following example, Line Item Percent shows the percentage of line items at each base (SRAN) for each SRAN as a percentage of total line items in the Air Force inventory.

Figure 4.103. Example of Using Percentages.

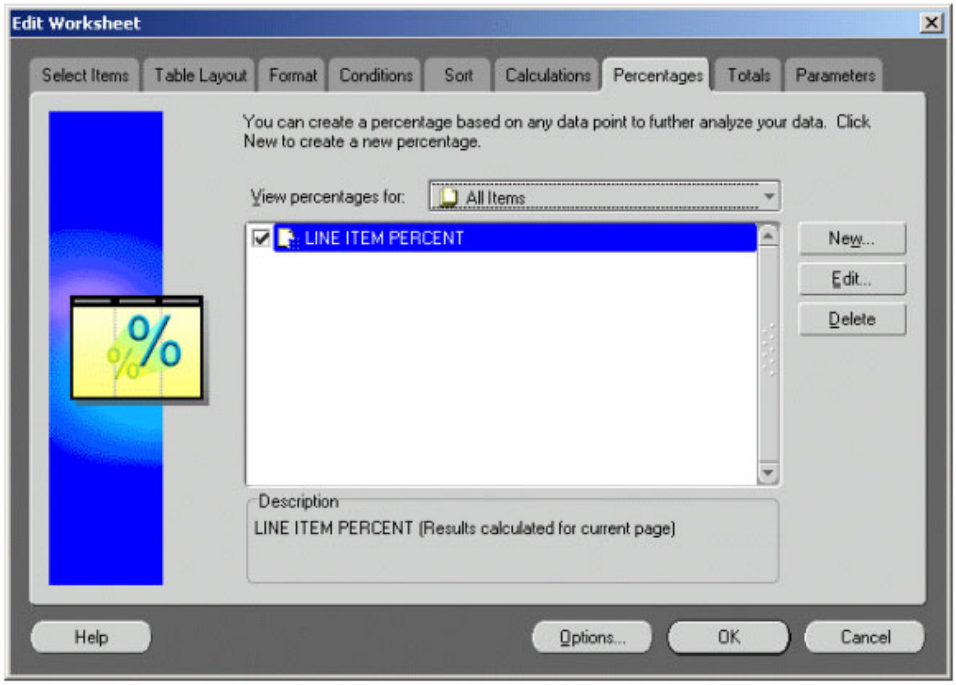
	SRAN	LINE ITEM PERCENT
1	2823	30%
2	2857	1%
3	3300	5%
4	4800	12%
5	5000	24%
6	6012	6%
7	6324	7%
8	6461	5%
9	6520	6%
10	7023	2%
11	7029	2%

4.7.6.1. Displaying Existing Percentages. Many percentage definitions may be defined and then displayed on the worksheet. You can also display percentages of Subtotals and Grand Totals.

To display percentages on a worksheet:

1. From the menu, choose **Tools**, and then **Percentages.** The **Edit Worksheet** dialog appears with the **Percentages** tab selected. It shows the percentages already defined for the worksheet.

Figure 4.104. Edit Worksheet, Percentages Dialog Box.



2. Click the box in front of a percentage definition so a checkmark appears.
3. Click **OK**.

   Discoverer now computes the percentages and displays them on the worksheet.

To remove the percentages from the worksheet:

4. From the menu, choose **Tools**, and then **Percentages.** The **Percentages** dialog appears.
5. Click the checkmark box (es) to remove the checkmark.
6. Click **OK** to remove the percentages from the worksheet.

4.7.5.2. Creating a New Percentage. Creating a new percentage definition has three basic steps:

Select the data item for calculating the percentage.

Choose to calculate the percentage of a total or of subtotals.

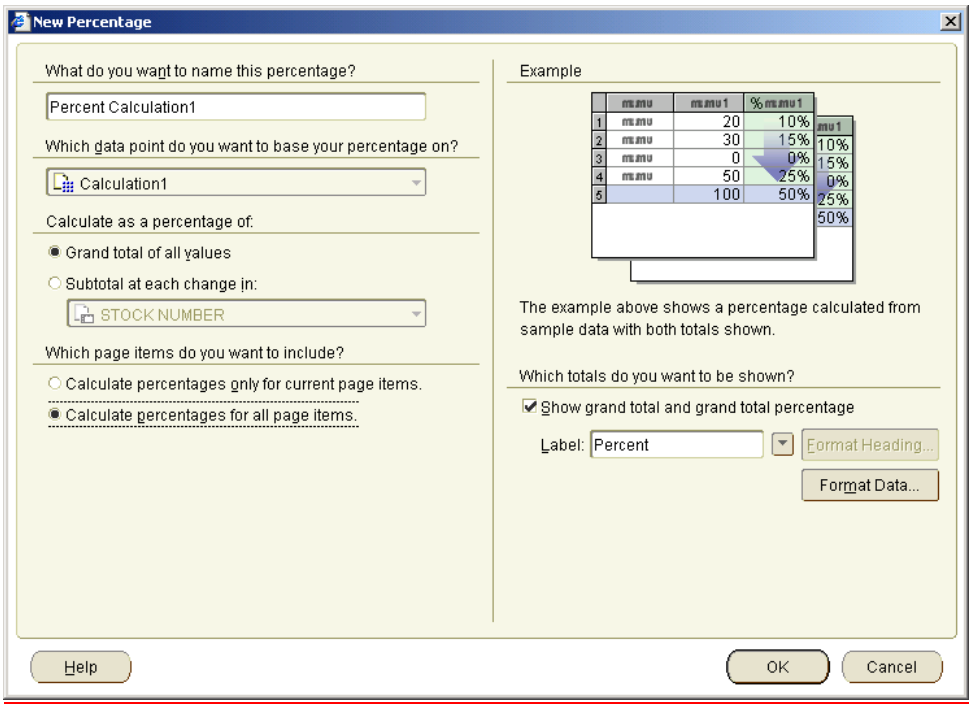
Create a label for the percentage column.

To create a new percentage definition:

1. From the menu, choose **Tools**, and then **Percentages.** The Edit Worksheet dialog appears with the **Percentages** tab selected.
2. Click the **New** button. The dialog for a new definition appears. The following example

is for creating a new percentage for a cross tab worksheet. The dialog for a table worksheet is similar.

Figure 4.105. Edit Percentage Dialog Box.



3. Click in the box for the name of the percentage definition and type a name for it.
4. Click the drop-down list to see the list of data points to use to calculate percentages.
5. Select the data item from the list.

   Select one of the options to calculate a percentage.

   The following table lists your choices:

Table 4.5. Options.

Option	Description
Grand total of all values	Calculates the percentage of the Grand Total for all the columns and rows.
Grand total for each column (cross tab only)	Calculates the percentage of the Grand Total for each column.
Grand total for each row (cross tab only)	Calculates the percentage of the Grand Total for each row.

Subtotal at each change in	Calculates the percentage and places it at each new value for the selected item. Select the item from the drop-down menu where you want the percentage to be displayed when the value changes. This option is usually used for data sorted as groups and you want to see the percentage amount for each group rather than for each individual item.

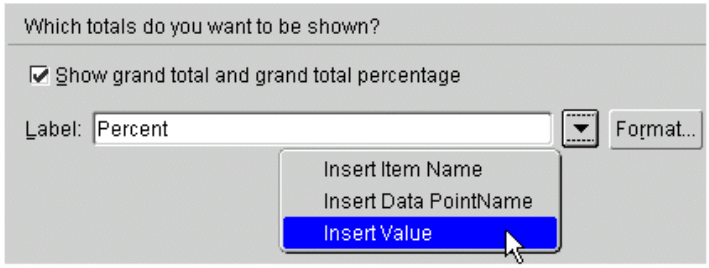
The illustration on the right side of the dialog shows a representative worksheet containing percentage columns based on your selections.

1. Select to display the percentages for all page items, or only for the current page items.

2. On the right side of the dialog, select whether to display the total amount as well as the percentage. For example, if you select to calculate percentages for subtotals at each change in the ERRCD data item, you can also select to display the subtotals and their percentages, and subtotals as a percentage of the Grand Total

3. Type labels for the percentages, or click the drop-down lists for labels and choose additional options.

Figure 4.106. Percentage Label Dialog.



Options from the drop-down menu produce labels that can change as the data changes by adding text codes such as "&Item" and "&Value" where you insert them in the label text. In the actual labels in the table or cross tab, the ampersand (&) will not appear, and appropriate names from the table or cross tab will be inserted in place of the words "Item" or" Value".

The table below shows some examples.

Table 4.6. Examples.

Option	Example	Sample Label (s)
Insert Item Name	Percent of MICAP Conditions with &Item	Percent of MICAP Conditions with Cause

		Code
Insert Data Point Name	Number of &Data	Number of Cause Code Count
Insert Value	Total Occurrences for Cause Code &Value	Total Occurrences for Cause Code A

To remove options from the labels, click in the label text in the dialog and edit it as you would regular text.

1. Click **OK** to return to the **Percentages** dialog with the new definition. Click **OK** to display the new percentage to the worksheet.

4.7.6.3. Editing an Existing Percentage.

To edit a percentage definition:

1. From the menu, choose **Tools**, and then **Percentages.** The **Edit Worksheet** dialog appears with the **Percentages** tab selected.
2. Select the definition you want to edit.
3. Click the **Edit** button. The **Edit Percentage** dialog appears.
4. Make the changes you want.
5. Click **OK**. The percentage definition is now edited.

4.8. Sharing Results With Others. You can share results with others by printing your worksheets and graphs, exporting data to another format (such as an Excel spreadsheet), or specifically sharing workbooks with other people who also have access to Oracle Reports database.

4.8.1. Printing Worksheets and Graphs. Discoverer provides the **Print Wizard** to help you print your worksheets and graphs. With the help of the **Print Wizard**, you can expect that what you see on screen prints out the same way on paper, including worksheet titles, graph titles and legends, and Page Items. You can print a single worksheet, all worksheets in a workbook, and all graphs associated with any worksheets. Worksheets and their graphs print sequentially so that each graph prints in order immediately after its worksheet.

If your worksheet contains Page Items, note that you can print exactly what you see on screen. To print other combinations of Page Items, first pivot the Page Items and then print your modified worksheet. Also, note that pivoting Page Items changes the content of your graph. Before printing, verify your graph contains the data that you want to print.

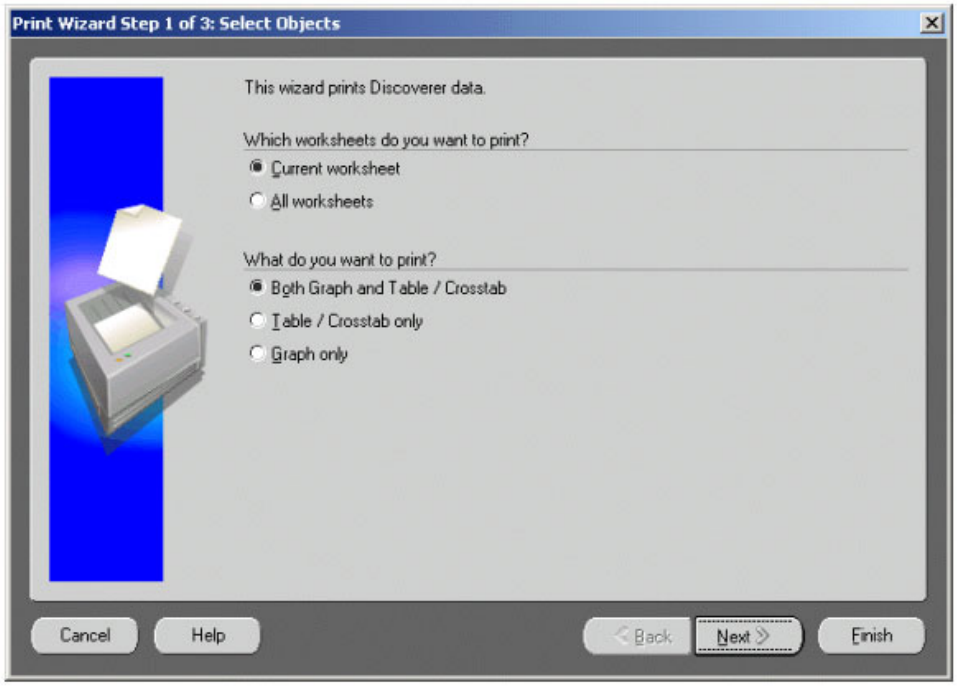
Graphs always print on a single sheet of paper. However, within the boundaries of that sheet of paper you can choose to print the graph at different sizes. You can print the graph the same size that you see on screen or scale the graph to fill the entire sheet of paper or any smaller size. If what you see on screen is too large to fit onto a single sheet of paper, the **Print Wizard** automatically scales the graph to the correct size.

To print worksheets and their graphs:

1. Open the worksheet that you want to print. Make sure it contains the combination of Page Items that you want. Open the worksheet that you want to print. Make sure it contains the combination of Page Items that you want.

2. From the menu, choose **File,** and then **Print.** The **Print Wizard** dialog appears.

Figure 4.107. Print Wizard, Step 1; Select Objects.



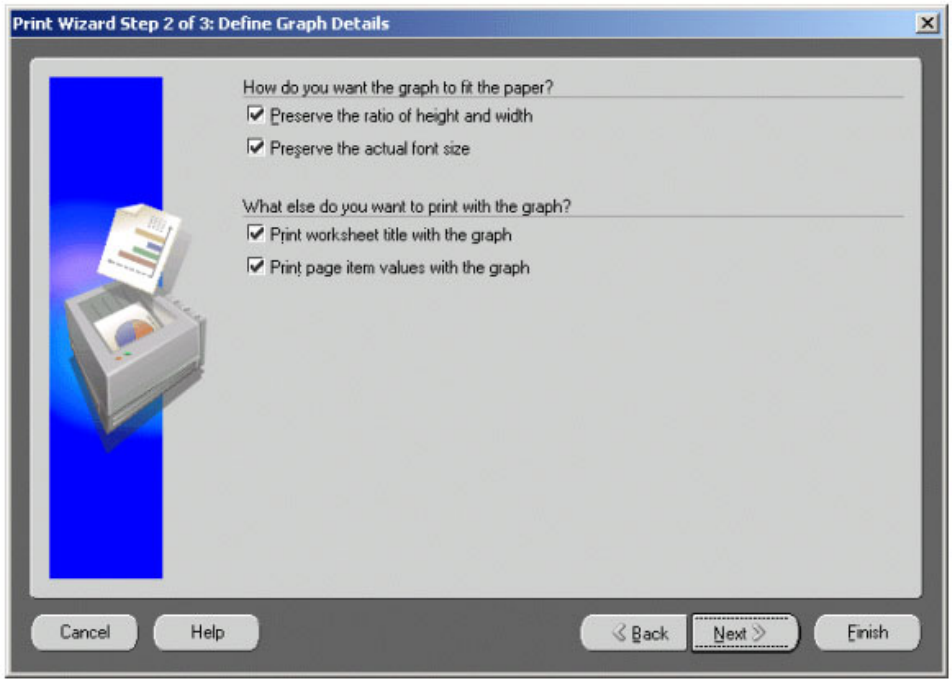
3. Select which worksheets you want to print:

   Current worksheet--prints the currently open worksheet.

   All worksheets--prints all worksheets in the workbook.

4. Select whether you want to print the graph and its worksheet, only the worksheet, or only the graph. Click **Next**. If you choose to print only the worksheet, without any graphs, the **Print Wizard** takes you to the final dialog. Skip to step 6. Otherwise, the second **Print Wizard** dialog appears.

Figure 4.108. Print Wizard, Step 2; Define Graph Details.



5. Select the size that you want to print your graph:

Preserve the ratio of height and width--If what you see on screen is larger than apiece of paper, this checkbox scales the graph smaller without distorting the graph.

Preserve the actual font size--If the graph must be scaled to fit a piece of paper, this checkbox prevents the fonts from also becoming smaller.

Select the other graph elements that you want to print:

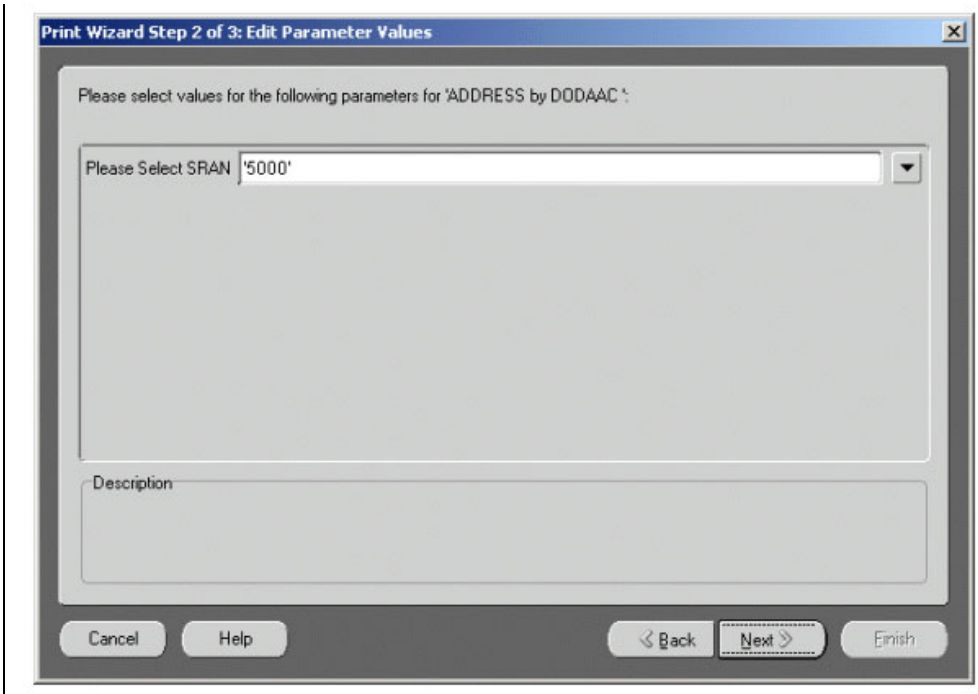
Print worksheet title with the graph--A graph and its worksheet can have different titles. This checkbox prints the worksheet's title onto the paper.

Print page item values with the graph--If your worksheet contains Page Items, this checkbox prints the Page Item values onto the paper; for example, "SRAN = 2823".

6. Click **Next**.

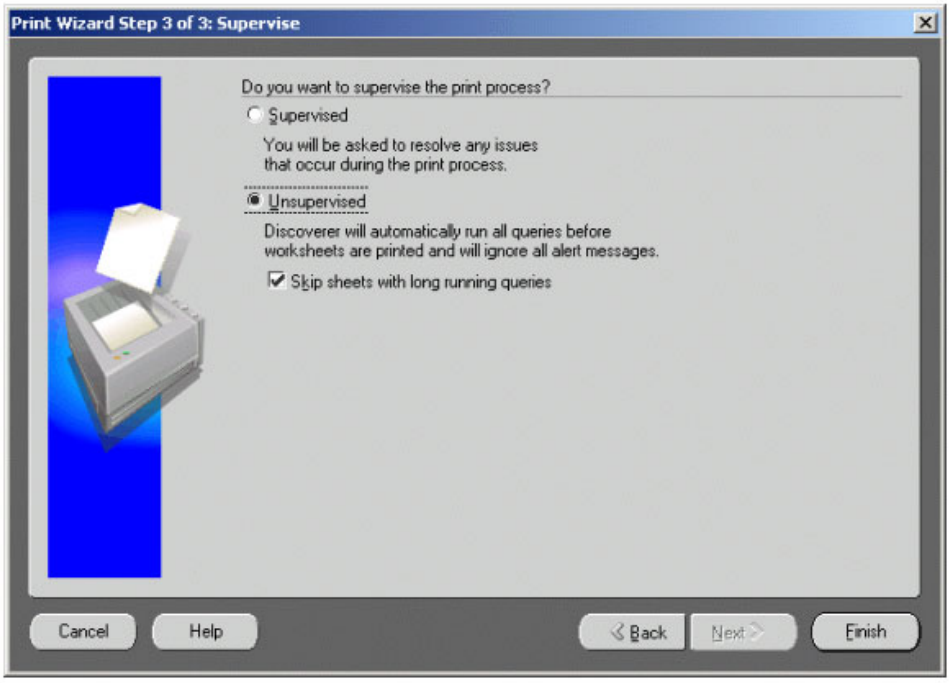
7. If you have defined Parameters for the worksheet, the optional **Print Parameter Page** allows you to restrict your printout to certain Items. For example, if a Parameter is created on SRAN, this page may ask you to enter a SRAN or choose from a list of SRANs, e.g. 2804, 2823, or 3300. If you do not want to restrict your printout, close the Print Wizard, choose Tools\Parameters, and turn off any Parameters by de-selecting the Parameter check boxes.

Figure 4.109. Print Wizard, Step 2, Edit Parameter Values.



8. Select whether or not you want to supervise the printing process. Discoverer may occasionally give you alert messages to let you know that queries take a long time or that the database returns more data than the maximum set in the Options dialog's Query Governor tab.

Figure 4.110. Print Wizard, Step 3, Supervise.



Supervised--select this option if you want to see these alert messages while printing.

Unsupervised--select this option to ignore any alert message while printing.

Skip sheets with long running queries-- click this checkbox if you expect that some of the worksheets will take a long time to print and you don't want to wait. The **Print Wizard** prints the rest of the worksheets. You can print the slower worksheets later.

NOTE:

If any worksheets contain parameters, Discoverer will still ask you to choose values for the parameters whether you choose **Supervised** or **Unsupervised**.

9. Click **Finish**. The **Print** dialog belonging to your computer's operating system appears. In the **Print** dialog, you can choose a printer, paper size, and the number of copies that you want. Click **OK** to print your worksheets and graphs.

NOTE:

To print other combinations of Page Items on the worksheet, first pivot the Page Items. Then from the menu, choose **File**, and then **Print** again. Repeat the printing process for each combination of Page Items. Also, note that pivoting Page Items changes the content of your graph. Before printing, verify your graph contains the data that you want to print.

4.8.2. Exporting Data to Other Application Formats. Discoverer provides the **Export Wizard** to help you share your worksheets and graphs with other people by exporting them to popular

application formats, such as Microsoft Excel or HTML. In fact, because these two formats are so popular in the business world, Discoverer also provides shortcuts from the **Toolbar** and **File** menu to quickly export to Excel and HTML.

With the help of the **Export Wizard**, you can expect what you see on screen appears as similar as possible in other applications. Exporting a worksheet exports its data; but depending on the type of format you choose, the exported worksheet may also contain its formatting and layout. However, exporting does not export Discoverer features, such as calculations and conditions. In other words, you can view the exported data in another application, but you cannot apply Discoverer features to it in that application.

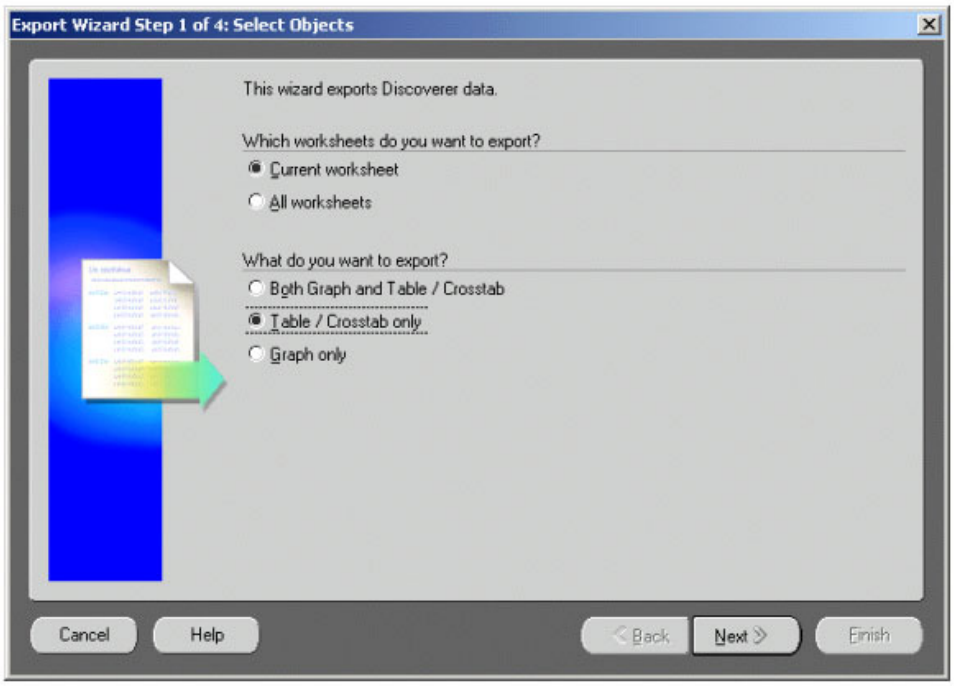
You can export a single worksheet, all worksheets in a workbook, and all graphs associated with any worksheets. Worksheets and their graphs export as separate files, one file for each worksheet in a workbook, and one file for each graph. Note that the **Export Wizard** always exports graphs as GIF files, an image file format that is common on the Web and supported by many applications. You can also choose to export graphs at different sizes. You can export the graph the same size that you see on screen or scale the graph larger or smaller.

If your worksheet contains Page Items, note that you can export exactly what you see on screen. To export other combinations of Page Items, first pivot the Page Items and then export your modified worksheet. Pivoting Page Items changes the content of your graph so that your worksheet and your graph match. Before exporting, look at your graph to verify that it contains the data that you want to export.

To export to other applications:

1. Open the worksheet that you want to export.
2. From the menu, choose **File**, and then **Export** to start the Export Wizard.

Figure 4.111. Export Wizard, Step 1, Select Objects.



3. Select which worksheets you want to export:

   Current worksheet--exports the currently open worksheet.

   All worksheets--exports all worksheets in the workbook.

4. Choose what you want to export.

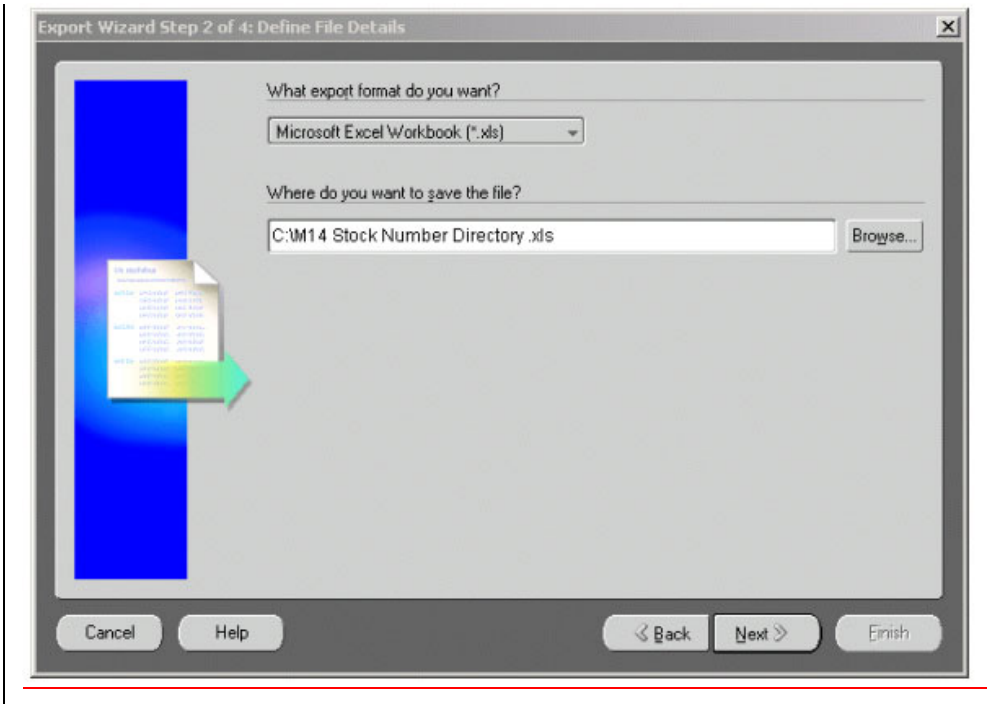
   Both Graph and Table/Cross tab--exports the data and the graph.

   Table/Cross tab only--exports the data.

   Graph only--exports the graph.

5. Click **Next** to move to page two of the **Export Wizard**.

Figure 4.112. Export Wizard, Step 2, Define File Details.

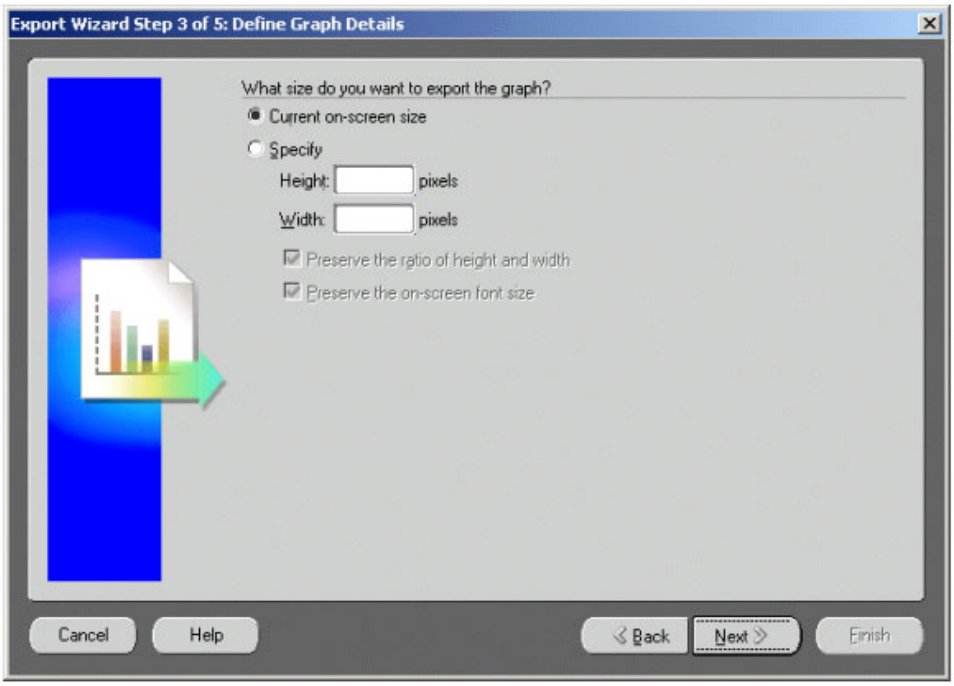


6. Select an export format from the pull down list. You can choose from many popular data formats, such as Microsoft Excel Spreadsheet (*.xls), Hyper-Text Markup Language (*.htm), Tab Delimited Text (*.txt), and others.

7. Type the path to the location on your hard drive (or network drive) where you want to save this exported file. If you are unsure of the correct path, click the **Browse** button to browse to the location that you want.

8. Click **Next** to move to page three of the **Export Wizard**.

Figure 4.113. Export Wizard, Step 3, Define Graph Details.



9. Select the size that you want to export your graph and font:

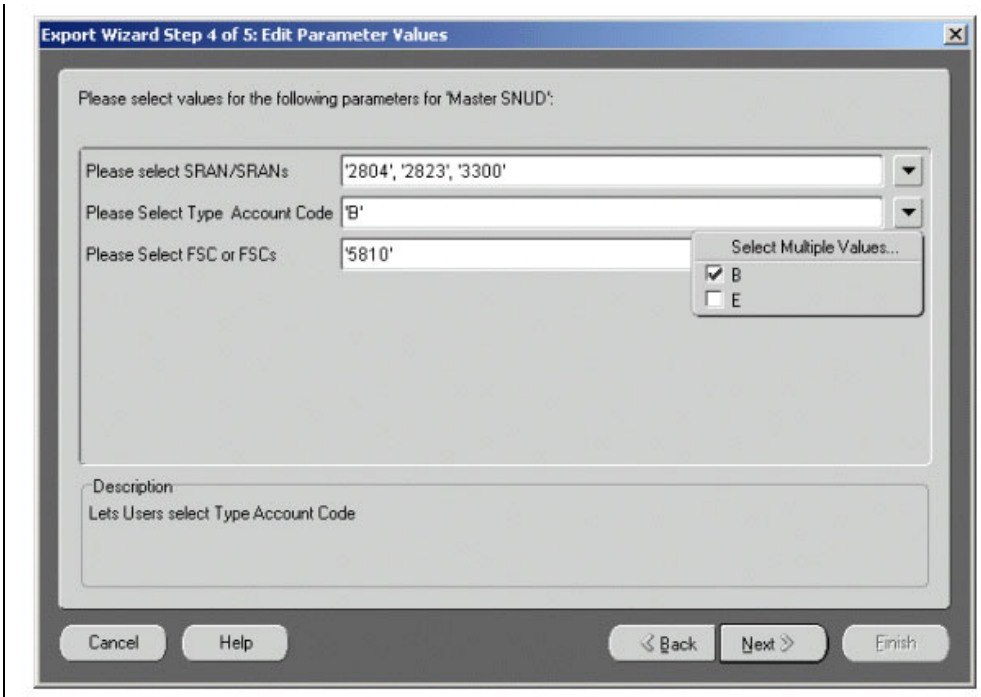
Current on-screen size--exports the graph the same size that you see on screen. If you resize the graph on screen first, this selection exports the current on-screen size.

Specify--exports the graph larger or smaller than what you see on screen. Type exact pixel dimensions for height and width; for example, Height 400 pixels and Width 600 pixels.

Preserve the ratio of height and width--if you specify the height for your graph, automatically set the width, OR if you specify the width for your graph, automatically set the height. **Preserve the on-screen font size**--If you specify the exact height and width in pixels for your graph, this checkbox prevents the fonts from changing size.

10. Click **Next** to move to the next page of the **Export Wizard**.

Figure 4.114. Export Wizard, Step 4, Parameter Values.



If the worksheet defined Parameters for the worksheet, the optional **Choose Parameter Page** allows you to restrict the data in the worksheet according to values that you enter. If you are exporting the whole workbook, this dialog appears for each worksheet.

11. Select whether or not you want to supervise the export process. Discoverer may occasionally give you alert messages to let you know that queries take a long time or that the database returns more data than the maximum set in the Options dialog's Query Governor tab.

Supervised--select this option if you want to see these alert messages while exporting.

Unsupervised--select this option to ignore any alert messages while exporting. You can also add a checkmark to the checkbox **Skip sheets with long running queries** if you expect that some of the worksheets will take a long time to export and you don't want to wait. The **Export Wizard** exports the rest of the worksheets. You can export the slower worksheets later.

NOTE:

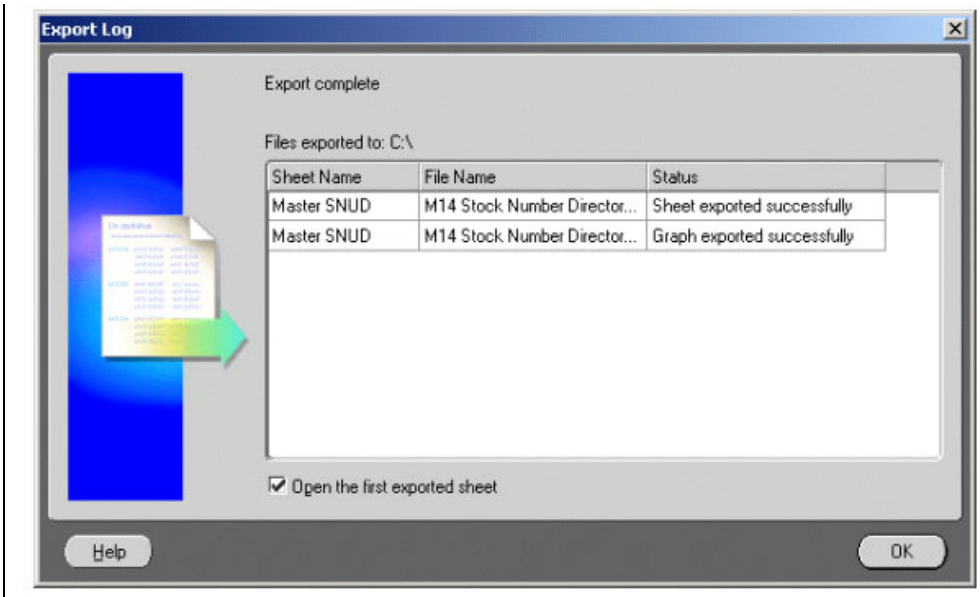
If the worksheets contain parameters, Discoverer will still ask you to choose values for the parameters whether you choose **Supervised** or **Unsupervised**.

12. Click **Finish** on the **Export Wizard** dialog box. If the worksheet has parameters defined for it, the following dialog box appears. Click the drop-down menus and select the values for the worksheet's parameters.

13. Click **Finish**.

Worksheets are saved in the new format in the directory you specified. Progress messages appear to let you know how the export process is proceeding. The Export Log then appears so you can check that all worksheets were exported successfully.

Figure 4.115. Export Log.



14. Do one of the following:

To view the newly exported worksheets in their new format (for example, in Microsoft Excel or in your Web browser), click the checkbox; **Open the first exported sheet**.

To view the worksheets later, uncheck this checkbox.

15. Click **OK**.

NOTE:

To export other combinations of Page Items on a worksheet, first pivot the Page Items. Then from the menu, choose **File**, and then **Export** again. Repeat the export process for each combination of Page Items. Also, note that pivoting Page Items changes the content of your graph. Before exporting, look at your graph to verify that it contains the data that you want.

4.8.3. Exporting to Microsoft Excel and HTML Formats. Excel and HTML tools on the tool bar help you quickly export Discoverer worksheets to Microsoft Excel format and HTML format.

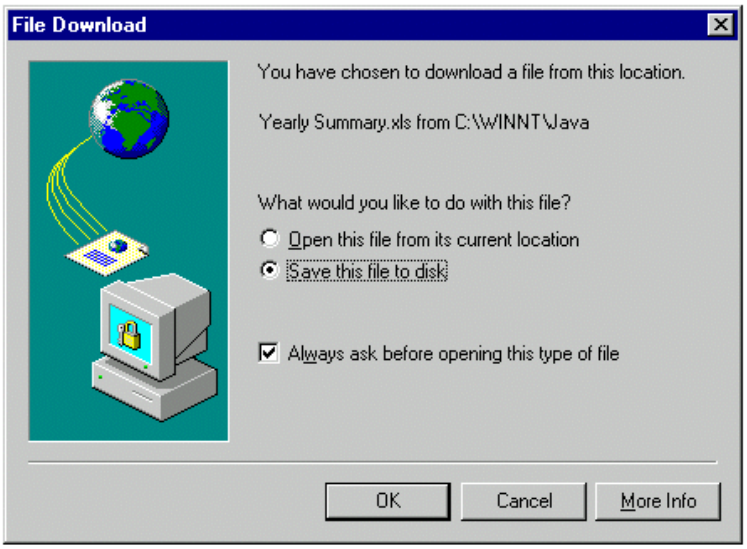
1. Open the worksheet that you want to export to Microsoft Excel. Make sure that it contains the combination of Page Items that you want.

2. From the menu, choose **File**, and then **Export to Excel, (or click the icon on the**

toolbar).

Depending on the browser you are using, the Download dialog appears.

Figure 4.116. File Download Dialog Box.



3. Select one of the options:

Open this file from its current location-- the worksheet opens from the database as a Microsoft Excel spreadsheet (*.xls).

Save this file to disk-- you can save the worksheet on your local hard disk as a Microsoft Excel spreadsheet (*.xls).

If you deselect the option Always ask before opening this type of file, the Download dialog does not appear when you export a worksheet to Excel.

4. Click **OK**. The worksheet is saved in Microsoft Excel spreadsheet format. If you selected the option to open the file from its current location, Excel launches to display the new Excel spreadsheet.

To quickly save as HTML:

5. Open the worksheet that you want to export to HTML format. Make sure that it contains the combination of Page Items that you want.

6. From the menu, choose **File**, and then **Export to HTML, (or click the icon on the toolbar)**.

Your worksheet is saved to your default file location (for example, the default file location on your hard disk) and is displayed in your browser.

4.8.4. Sharing Workbooks. Sharing a workbook allows other people to view, analyze, and

print the workbook. You can share workbooks with other people two ways:

Share one workbook with multiple users.

Share multiple workbooks with one other user.

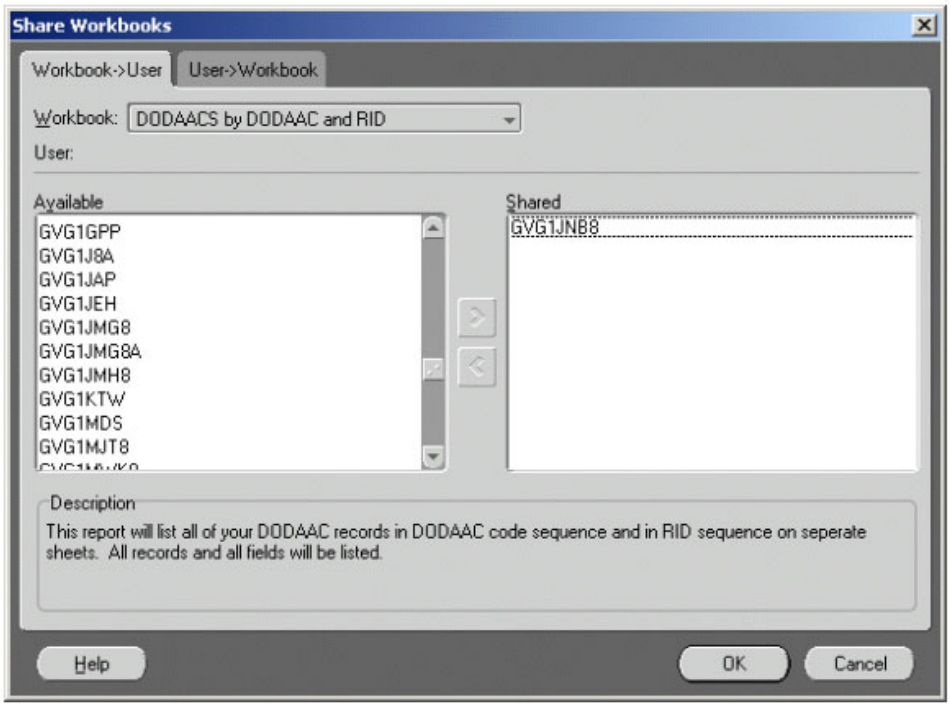
Sharing workbooks lets others use and analyze the same data. For example, a Regional Supply Squadron (RSS) may want everyone in the Major Command (MAJCOM) to share a workbook that includes Stockage Effectiveness. Similarly, you may want a Chief of Supply (COS) to have access to all the workbooks created for their base account.

To share workbooks, you use the Shared Workbooks dialog. The two tabs at the top of the dialog are for assigning workbooks to users or users to workbooks.

To share one workbook with several other people:

1. From the menu, choose **File**, and then **Manage Workbooks**, and then **Sharing**. The **Share Workbooks** dialog appears.

Figure 4.117. Share Workbooks, Workbook to User dialog Box.



2. Click the **Workbook -> User** tab.

3. Choose the name of the workbook that you want to share from the workbook drop-down list.

4. In the list of **Available Users**, click the name of a person with whom you want to share

the workbook.

5. Click **Add**. The person's name appears in the **Shared** list. The names in the **Shared** list are the people who can have access to the workbook.

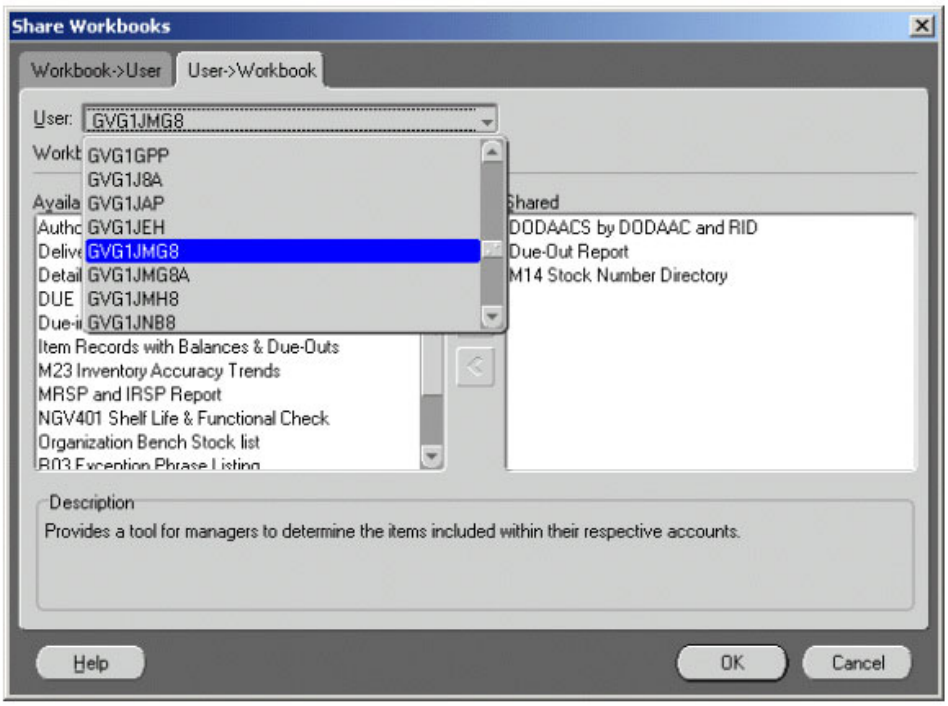
6. Repeat for all the people with whom you want to share the workbook.

7. Click **OK**.

To share several workbooks with another person:

8. From the main Discoverer menu, choose **File**, and then **Manage Workbooks**, and then **Sharing**. The **Share Workbooks** dialog appears.

Figure 4.118. Share Workbooks, User to Workbook Dialog Box.



9. Click the **User -> Workbook** tab.

10. Choose the name of the person with whom you want to share the workbook from the User drop-down list.

11. In the list of **Available Workbooks**, click the name of a workbook that you want to share with the other person.

12. Click **Add**. The workbook's name appears in the **Shared** list. The names in the **Shared** list are the workbooks you have shared with others.

13. Repeat for all the workbooks that you want to share with the other person.

14. Click **OK**.

4.9. Using Lists of Values (LOVs). This section describes how to improve productivity using Lists of Values (LOVs) in Discoverer, and includes the following topics:

What are LOVs?

LOV examples.

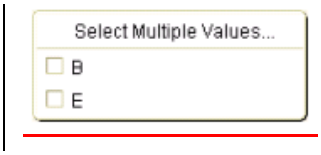
About using LOVs.

How to select single values from long LOVs.

How to select multiple values from long LOVs.

4.9.1. What are LOVs? LOVs contain a list of valid values for an item. For example, a LOV for a Type Account Code item might contain the values, B and E (see figure below).

Figure 4.119. Example of LOV.



4.9.1.1. LOVs are used in:

Parameters

Conditions

Discoverer item navigator

Export wizard

4.9.1.2. LOVs are used in the following way:

4.9.1.2.1. When used in parameters, conditions, and export, LOVs enable you to select predefined values rather than enter arbitrary values in a text field.

4.9.1.2.2. When used in the Discoverer item navigator, LOVs enable you to apply conditions to worksheets without defining conditions criteria. For example, choosing Type Account Code "B" from a LOV in the Discoverer item navigator filters a worksheet to display only data for Type Account Code "B".

4.9.1.2.3. LOVs work differently with parameters and conditions:

4.9.1.2.3.1. With parameters, creator of the Discoverer workbook specifies whether single or multiple values are allowed. For example, when setting a parameter, a user might choose 1999 and 2000 from a LOV.

4.9.1.2.3.2. With conditions, the condition type determines whether you can select single or multiple values. Only the following condition types allow multiple values:

Like

Not like

In

Not in

Is null

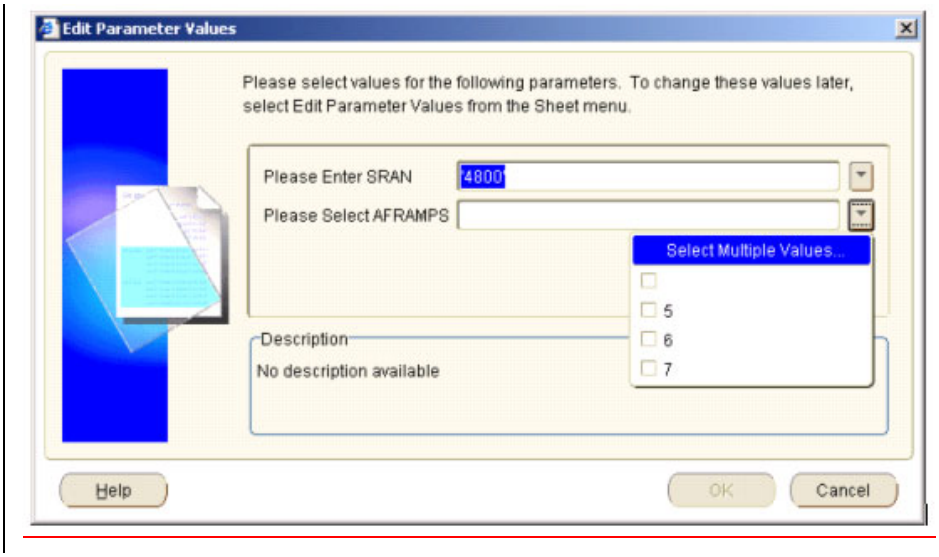
Is not null

Between

4.9.2. LOV Examples. This sub-section contains examples of using LOVs.

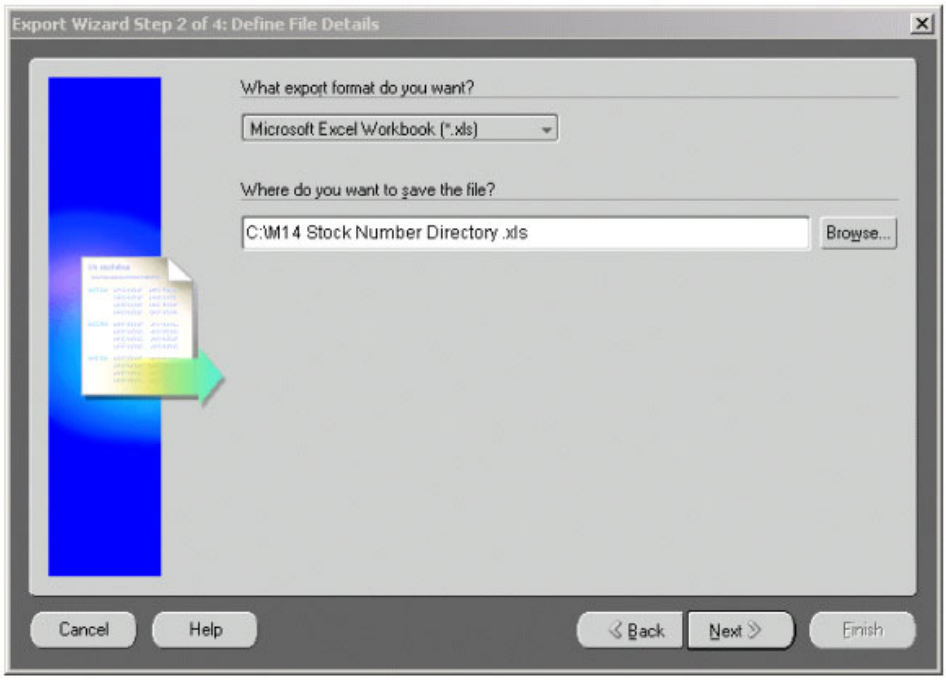
4.9.2.1. A LOV used to specify worksheet parameters. In the figure below, a LOV has been created on the Air Force Recoverable Assembly Management Process System Report Code (AFRAMPS) item, containing the AFRAMPS Codes ‘blank, 5, 6, & 7. If a LOV was not defined on AFRAMPS Code, you might enter '8' here, which would result in an empty worksheet because the database does not contain this AFRAMPS Code. The figure below shows the value ‘5’ being selected from a LOV in a parameter dialog.

Figure 4.120. Edit Parameters Values Dialog Box.



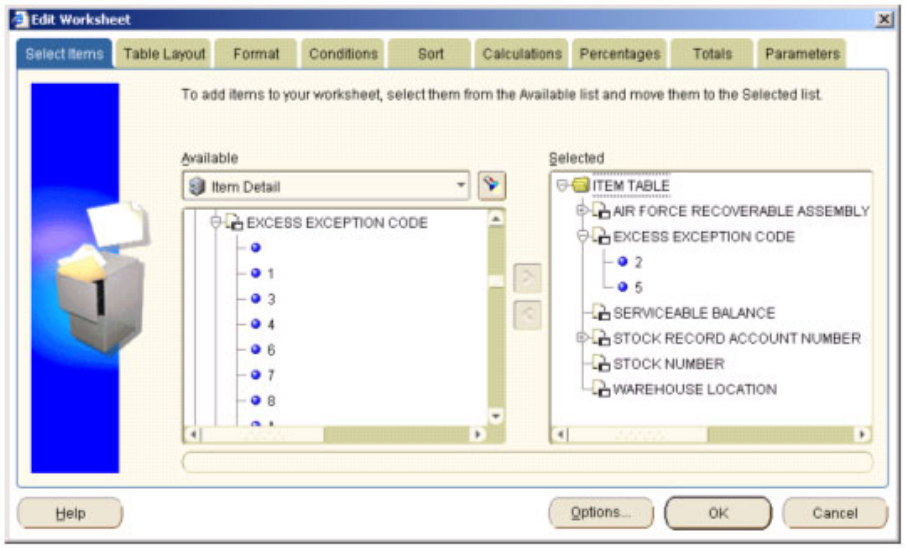
4.9.2.2. A LOV used in a condition. LOVs are also used when you create conditions. For example, in the figure below, the LOV containing months is used to choose values against which to match worksheet data. The figure below shows the value Feb (i.e. February) being selected from a LOV in a condition dialog

Figure 4.121. Using LOVs in a Condition Statement.



4.9.2.3. A LOV used in the Discoverer Item Navigator. LOVs are also used in the Discoverer item navigator. For example, in the figure below, the LOV values for Excess Exception Code of 2 & 5 are selected for display on a worksheet. In other words, the LOV values are used to filter the worksheet. The figure below shows the values 2 & 5 being selected in the Discoverer item navigator.

Figure 4.122. Using LOVs in Item Navigator.



4.9.3. About using long LOVs. When LOVs contain a large number of values, Discoverer displays a dialog that enables you to search LOV values and select the values that you want. For example, if a LOV contains hundreds of values, you can select only values that begin with the letter 'A', or select only values that contain 'CPM'.

4.9.3.1. When using long LOVs, the following rules apply:

4.9.3.1.1. When LOVs are used with parameters, you can use the **Select Multiple Values** option to display a dialog that enables you to search and select LOV values.

4.9.3.1.2. When LOVs are used with conditions, you can use the **Select values** option to display a dialog that enables you to search and select LOV values.

4.9.4. How to select single values from long LOVs. When LOVs contain a large number of values, you select single LOV values using the “Select Value” dialog

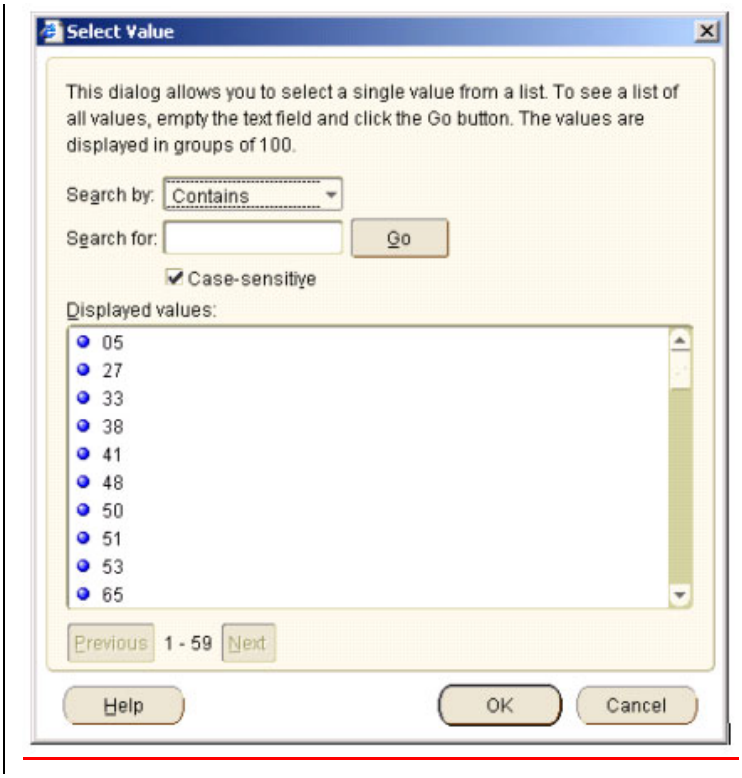
To select single values from long LOVs:

1. Display the “Select Value” dialog.

From the “Edit Parameter” dialog or “New Parameter” dialog, click the down arrow next to the **What default value do you want to give this parameter?** field, then choose Select values.

From the “Edit Condition” dialog, or “New Condition” dialog choose Select values from the **Values** drop down list.

Figure 4.123. Select Value Dislog for Single Item Selection.



2. If the **Displayed values** list contains the value that you want, select the value from the **Displayed values** list.

3. If you cannot see the value that you want in the **Displayed values** list, do one of the following:

Use the scroll bar to navigate up and down the values in the current group.

Use the Next and Previous buttons to display the next or previous group of values in the LOV (more than 100).

4. Limit the values in the Displayed values list using the **Search by** and **Search for** fields, as follows:

a. Use the **Search by** drop down list to specify how you want to match LOV values.

For example, Starts with or Equals.

b. Enter a search term in the **Search for** field.

For example, if you choose 'Starts with', type A to find LOV values that begin with A.

c. Select the **Case-sensitive** check box to match upper and lower case letters exactly.

For example, when selected the value 'CPM' would not find details containing 'Cpm' or 'cpm'.

NOTE: For quicker searches, select the Case-sensitive check box.

d. Click **Go** to start the search.

e. Values that match the search criteria are displayed in the **Displayed values** list. Values are displayed in groups. For example, groups of 50 or groups of 100.

Select the value that you want from the Selected values list.

5. Click **OK** to choose the selected LOV value and close the dialog.

LOV value that you specify is selected.

4.9.5. How to select multiple values from long LOVs. When LOVs contain a large number of values, you select single LOV values using the "Select Value" dialog

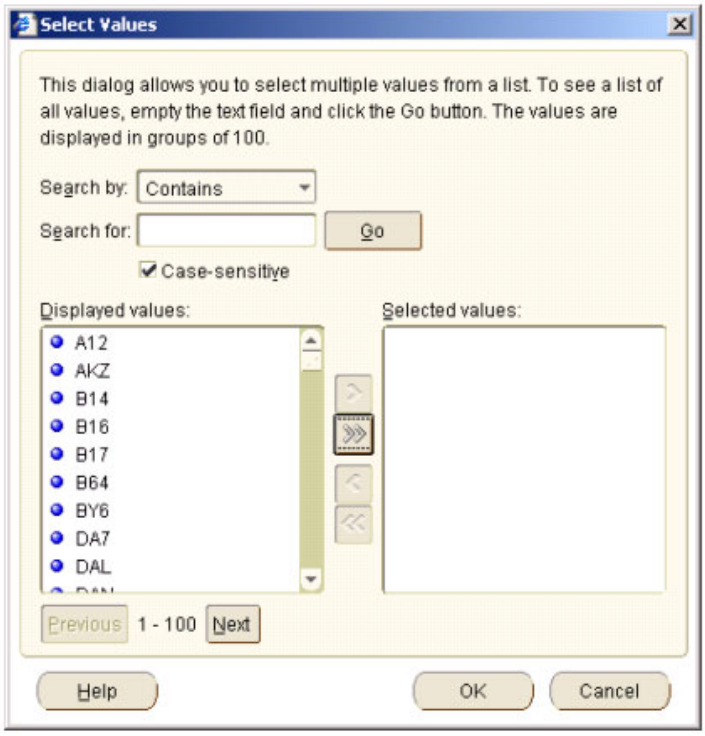
To select single values from long LOVs:

1. Display the "Select Value" dialog.

From the "Edit Parameter" dialog or "New Parameter" dialog, click the down arrow next to the **What default value do you want to give this parameter?** field, then choose Select values.

From the "Edit Condition" dialog, or "New Condition" dialog choose Select values from the **Values** drop down list.

Figure 4.124. Select Values Dialog for Multiple Selection Items.



2. If the **Displayed values** list contains the value that you want, select the value from the **Displayed values** list.

3. If you cannot see the value that you want in the **Displayed values** list, do one of the following:

Use the scroll bar to navigate up and down the values in the current group.

Use the Next and Previous buttons to display the next or previous group of values in the LOV (more than 100).

4. Limit the values in the Displayed values list using the **Search by** and **Search for** fields, as follows:

a. Use the **Search by** drop down list to specify how you want to match LOV values.

For example, Starts with or Equals.

b. Enter a search term in the **Search for** field.

For example, if you choose 'Starts with', type A to find LOV values that begin with A.

c. Select the **Case-sensitive** check box to match upper and lower case letters exactly. For example, when selected the value 'CPM' would not find details containing 'Cpm' or 'cpm'.

Note: For quicker searches, select the Case-sensitive check box.

d. Click **Go** to start the search.

Values that match the search criteria are displayed in the **Displayed values** list. Values are displayed in groups. For example, groups of 50 or groups of 100.

e. Select the value(s) that you want from the Selected values list.

5. Click **OK** to choose the selected LOV value and close the dialog.

LOV value(s) that you specify is selected.

4.10. Changing Default Settings. Discoverer's default Graphical User Interface settings determine how Discoverer works, looks, and feels. Using the Discoverer **Options** dialog, you can change the default options to suit your preferences and requirements.

Default options apply when you start working with Discoverer. Changes to defaults do not affect previous work. For example, if you use the **Options** dialog to change the formats for new worksheets, the formatting on previous worksheets is not affected.

NOTE:

In addition to opening the **Options** dialog from the menus, you can also open it by clicking the **Options** button if available in other dialogs. In that case, the options may apply only to the features offered in that dialog.

To change default settings:

1. Choose **Tools**, and then **Options**. The **Options** dialog appears. The tabs across the top of the dialog list the different option categories.

2. Click a tab to see its options.

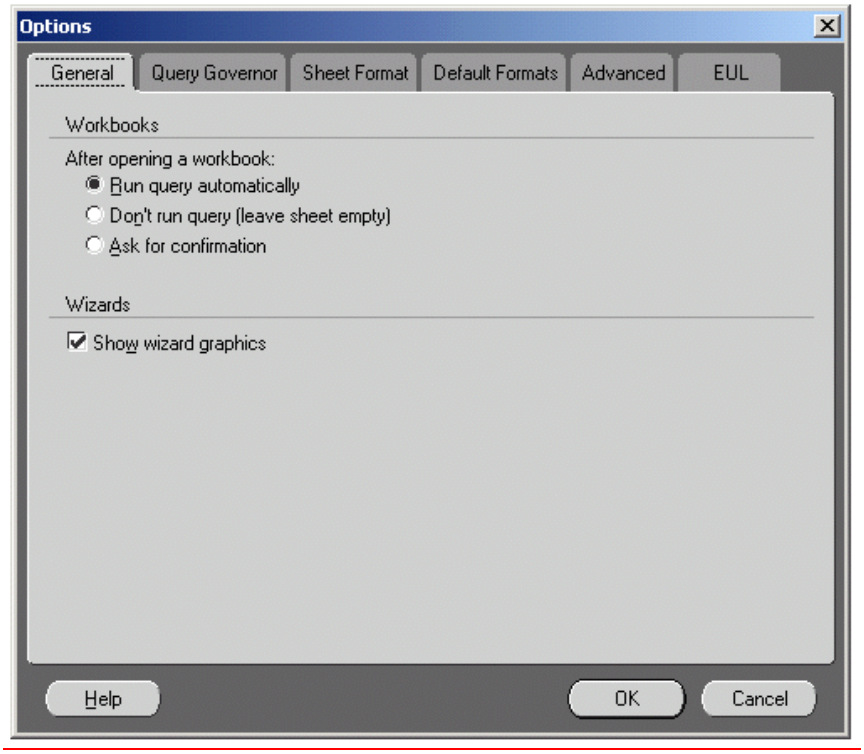
4.10.1. Setting General Options. **General** options are for opening workbooks and displaying wizard graphics.

To set general options:

1. From the menu, choose **Tools**, and then **Options**. The **Options** dialog appears. The tabs across the top of the dialog list the different option categories.

2. Click the **General** tab if it isn't already selected.

Figure 4.125. Option Dialog, General Tab.



.

3. Select the defaults for opening a workbook and running a query to load the data.

Run query automatically--Discoverer automatically retrieves the data specified by the worksheet in the workbook. Select this option to retrieve data for the worksheet as soon as you open a workbook or click on the tab of a worksheet.

Don't run query (leave sheet empty)--Opens the workbook and worksheet, but does not retrieve any data from the database. That is, the worksheet opens but does not contain any data. A typical reason for selecting this option is to see a different worksheet than the one that opens by default without waiting for the query results.

Ask for confirmation--This is the default selection. After the workbook opens, a dialog asks if you want to run the query for the first worksheet.

Show wizard graphics--Several Discoverer dialogs include artistic graphics (bitmaps). Deselect this option if you don't want to see the graphics in the dialogs.

4. Click **OK**.

4.10.2. Setting Query Governor Options. **Query Governor** options help reduce the amount of time it takes to display data. You can set defaults for Summary Data and for Queries.

Using Summary Data loads data more quickly for the work, you do most often. When you request data for a worksheet, Discoverer first checks Summary Tables set up by the Discoverer

Administrator to see if their saved data satisfies your request and, if it does, loads the appropriate data quickly. If the Summary Tables' data does not satisfy your request, Discoverer then redirects the request to the detail data.

NOTE:

Do not use Summary Tables if you normally work with the most current data in the database. The saved data in the Summary Tables remains constant until updated with new data. Summary Tables should be updated periodically to incorporate new data.

Query Governor options help you set limits on the amount of time a query should take to complete. Use these options to limit the time you wait for Discoverer to run a query. The options set time and size limits on data as it is being retrieved from the database.

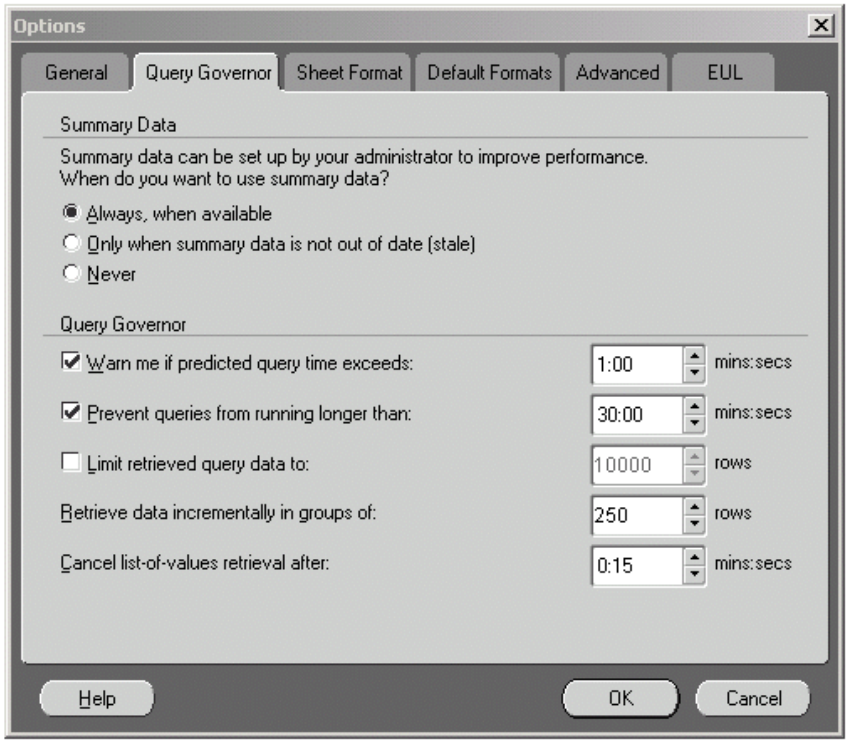
NOTE:

Discoverer Administrator at Standard Systems System Group (SSG) determines the upper limits for the **Query Governor** options. For example, SSG may determine that queries cannot run longer than 30 minutes. If you set the limit for 60 minutes, the numbers will change back to 30 automatically.

To set query governor options:

1. From the menu, choose **Tools**, and then **Options**. The **Options** dialog appears. The tabs across the top of the dialog list the different option categories.
2. Click the **Query Governor** tab.

Figure 4.126. Option Dialog Box, Query Governor Tab.



3. Select the options for Summary Data.

Always, when available--Select this option if time-sensitive data is not important to data analysis. Discoverer retrieves and displays saved data from the Summary Tables regardless of whether the data is current.

When summary data is more recent than--Select this option when time-sensitive data is necessary for worksheets. Click the up and down arrows to specify the number of days from the last data update. For example, if you're analyzing monthly data using Summary Tables, you want to make sure the data is less than thirty days old. If the Summary Tables' data has not been updated within the specified time, Discoverer does not use the Summary Tables to fulfill your query request. Instead Discoverer redirects your query request to the detail data and uses the latest data for the worksheet

4. Select the options for **Query Governor Data**.

Warn me if predicted query time exceeds--When requesting data for a worksheet, Discoverer estimates the time required to complete the query. Select this option if you want a message to warn that the query will take a long time to complete. The message appears only if the estimated completion time exceeds the period you specify, in MM:SS format, for this option.

Prevent queries from running longer than--Select this option to limit the time a query runs before it is cancelled. A warning message informs you if the query exceeds the set time, then Discoverer cancels the query. Normally, this option is selected if server performance is an issue because long running queries might affect server performance.

Limit retrieved query data to--This option sets the maximum number of rows to retrieve for a query. If the query returns more rows than the value you set here, a message informs you that not all data is retrieved and, consequently, the displayed data might not be complete.

Retrieve data incrementally in groups of--Set this option when the database contains large tables with many rows that might take a long time to retrieve. With this option selected, Discoverer retrieves rows of data in increments rather than all at the same time. The initial retrieval is faster if the number of rows to retrieve is smaller. The default size of the data group is 250 rows, which equates to the first 10 pages of data at 25 rows per page. You can set the number of rows per page using the **Rows per Page** option on the Sheet Format tab.

Cancel list-of-values retrieval after--Some dialogs have a convenient drop-down list from which you can select a value for an option instead of manually typing the value. This is called a list of values. For example, when creating a condition for analyzing inventories data by budget code (BC), you could either choose the value, “8”, from a list of budget codes, or manually type the BC "8" as part of the condition statement. However, some large lists of values take a long time to retrieve from the database, such as a list of 20,000 part numbers. If you don't want to wait for Discoverer to retrieve these larger lists of values, click the up and down arrows to set the maximum amount of time you would wait for this list to appear. This option does not cancel Discoverer's retrieval of the actual data for a query. In the case of the part numbers, for example, all the data about the parts in stock, price per part, demand data and so on, is displayed in the appropriate tables. Only the drop-down list of part numbers in various dialogs would not be available.

5. Click **OK**.

4.10.3. Setting Sheet Format Options. This tab in the **Options** dialog is for setting the display format of the table or cross tab.

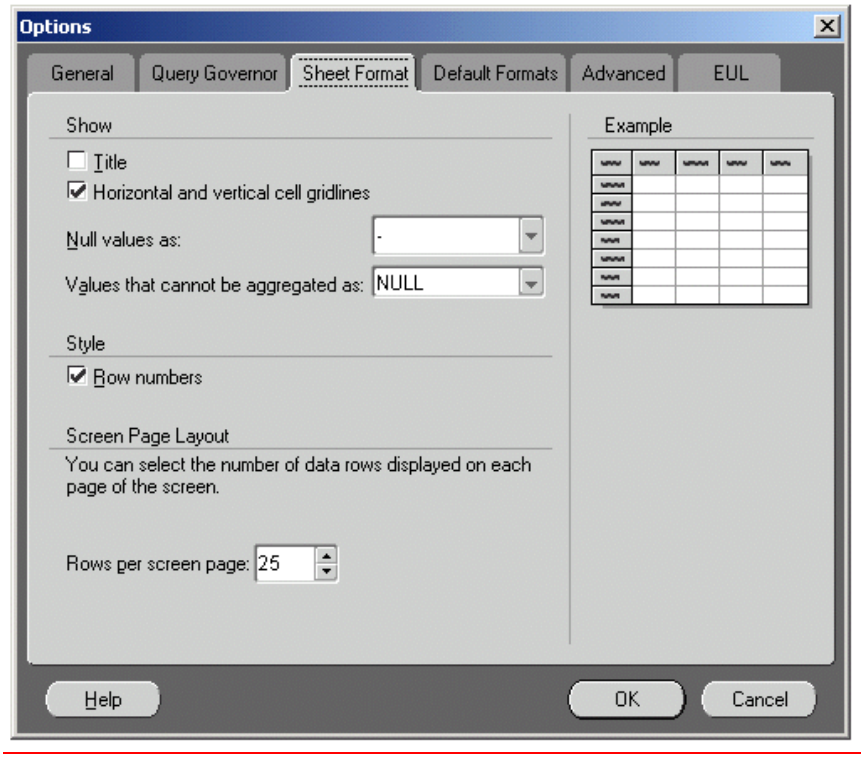
NOTE:

Changes to these settings affect the current sheet as well as any new sheets created later.

To set sheet format options:

1. From the menu, choose **Tools**, and then **Options**. The **Options** dialog appears.
2. Click the **Sheet Format** tab.

Figure 4.127. Options Dialog Box, Sheet Format Tab.



3. Select the options for the table or cross tab.

Title--Displays a title if one was created earlier.

Horizontal and Vertical Gridlines--Lines that separate rows and columns. The display example on the dialog shows a representation of your choices.

Null values as--A cell that contains a null value does not contain any data. Select the text to use to designate a null value from the drop-down list or type a value in the box.

NOTE:

If you select the 0 (zero) symbol as the null value, it may appear to the person looking at the table or cross tab that zero is the actual data. For example, in a cell specifying Requisition Exception Code (REX), zero means REX code is '0', whereas a null value in the same cell means the item table does not contain a REX code. Therefore, using the zero symbol to indicate null values might be misleading to others unless you explicitly state that 0 is equivalent to no data.

Values that cannot be aggregated as--Numbers that cannot be aggregated are formatted as one of the values in the pull down list.

Row Numbers (Table only)--Sequential numbers of each row in the table, shown on the left side of the table.

Inline/Outline (Cross tabs only)--Arrangement of the side-axis data items. As you select one of the options, the example icon represents the arrangement.

Rows per screen page--The number of data rows on each page of the worksheet. Click the up and down arrow buttons to select the number.

4. Click **OK**.

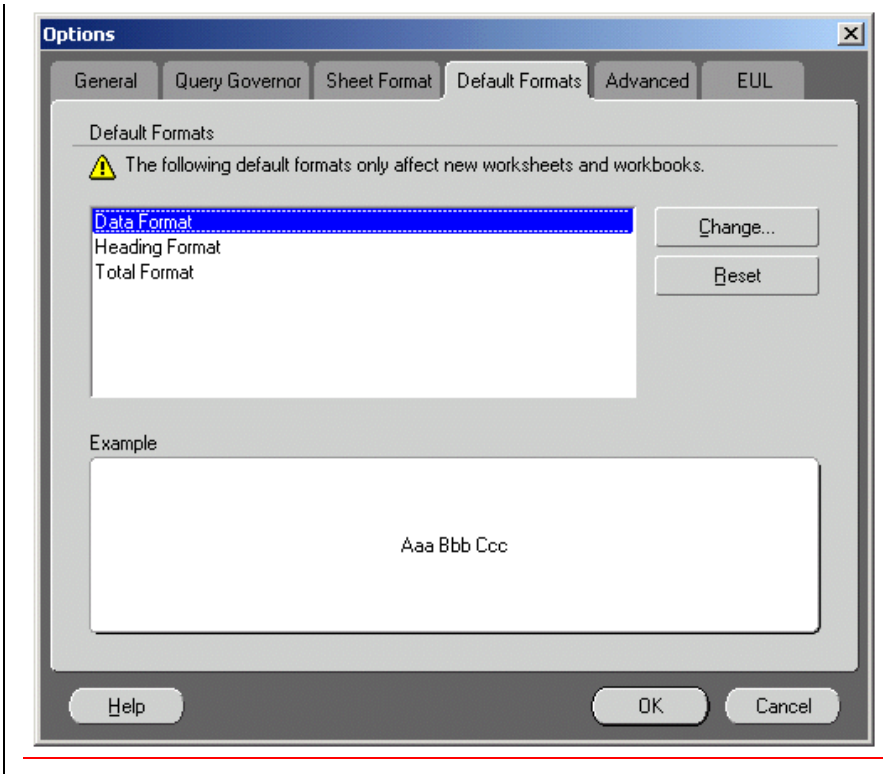
4.10.4. Setting Default Format Options. Default Format options are for setting the font style, text color, and background color of a worksheet's data, column headings, and totals.

To set format options:

1. From the menu, choose **Tools**, and then **Options**. The **Options** dialog appears. The tabs across the top of the dialog list the different option categories.

2. Click the **Default Formats** tab.

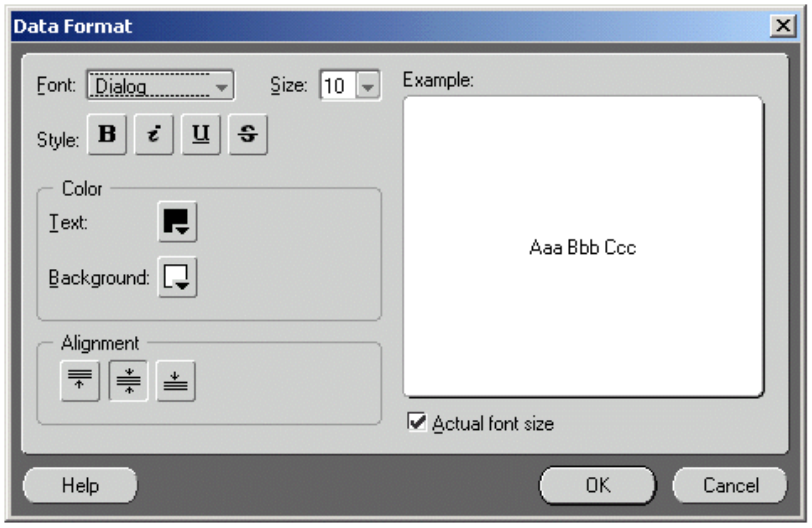
3. **Figure 4.128. Options Dialog Box, Defaults Formats Tab.** To see a default format, select it in the list. **Example** box shows an example of the format.



4. To change a default format, select from the list of formats.

5. Click the **Change** button. The **Data Format** dialog appears.

Figure 4.129. Data Format Dialog Box.



6. Select options on the **Data Format** dialog to set the default font style, alignment, text color, and background color for the selected format.

Size--Choose a size for the font from the drop-down list.

Style--Click a button to display the text in a **boldface**, italic, underline, or strikethrough. Click the appropriate button to remove the style if it is already in effect.

Color--Click the button to apply a color to either the text or the background. A palette of colors appears. Click the one you want.

Alignment--Click an alignment option. The options display the data in the top, middle, or bottom of the appropriate cell on the table or cross tab.

Actual font size--Select this option to display the data in the sample in the font size that you choose from the size drop-down list.

7. Click **OK**.

4.10.4.1. Resetting Default Formats. Sometimes, after changing several aspects of a format you want to change it back to the original Discoverer default settings. Instead of changing each format setting individually, you can click the **Reset** button.

1. In the **Format Options** dialog, select the default format to reset.

Resetting applies only to the selected format. Thus, you can reset one format but keep your changes made to the others.

2. Click the **Reset** button.
3. Click **OK**.

4.10.5. Setting Advanced Options. Advanced options are for turning on/off automatic querying and for catching join errors that relate to database relationships.

NOTE:

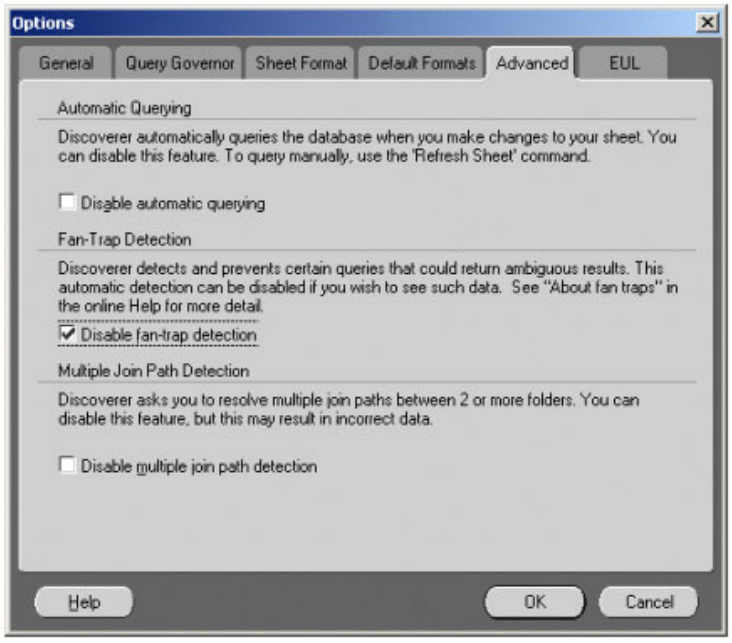
Do not change these options without assistance from the SSG Discoverer Administration Team.

To set advanced options:

1. From the menu, choose **Tools**, and then **Options**. The **Options** dialog appears. The tabs across the top of the dialog list the different option categories.

2. Click the **Advanced** tab.

Figure 4.130. Options Dialog Box, Advanced Tab.



3. Select the options.

Automatic Querying--When you make a change to a worksheet that affects the data results (as opposed to formatting changes), Discoverer automatically re-queries the database to display the appropriate results based on your changes. However, you can use this option to disable the automatic query feature in case you want to make changes to the worksheet but not have Discoverer update the data.

Fan-Trap Detection--When this check box is NOT selected, Discoverer automatically detects and resolves fan trap and chasm trap queries into multiple SQL statements to obtain normal expected results. If you disable Fan Trap detection, this may result in these queries

generating Cartesian products, with potentially misleading results. Select this check box if you want to prevent Discoverer from checking for fan traps.

Multiple Join Detection--Check this option to turn off Discoverer's automatic detection and prevention of worksheet arrangements that have potential multiple join paths.

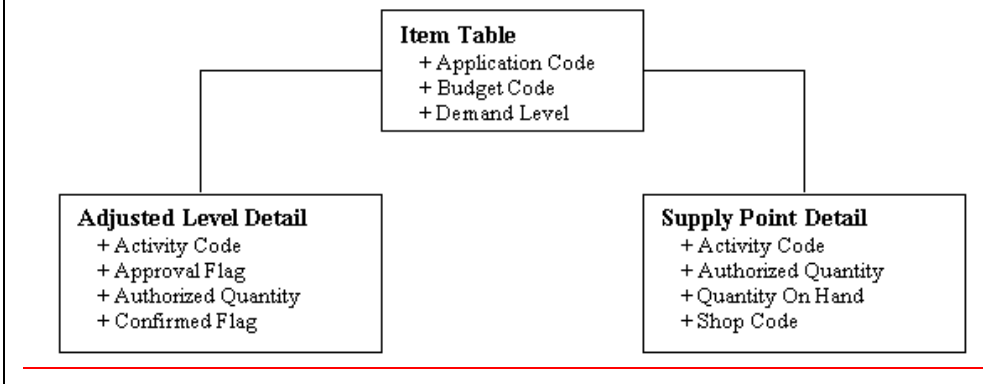
4. Click **OK**.

4.10.5.1. About Automatic Querying. While working with a worksheet, you can make changes that affect the data being displayed. For example, if you add a new data item or change a calculation that produces a data column, the displayed data may not reflect the change until Discoverer re-queries the database. With automatic querying, Discoverer automatically re-queries the database to get the updated data to display. In some cases, however, you may not want Discoverer to automatically re-query the database. For example, if you intend to make several changes that affect the data, then you don't want Discoverer to re-query the database until you're finished with the changes.

Using the **Advanced Options** dialog, you can turn on and off the automatic re-querying feature. If it is turned off and you want Discoverer to re-query the database, choose **Sheet**, and then **Refresh Sheet** from the menu.

4.10.5.2. About Fan Traps. A fan-trap occurs when the data items in two folders are not directly related (such as items in the Adjusted Level Detail folder and the Supply Point Detail folder), but do have a relationship based on the data items in a third folder (through the Item Table folder) see example below.

Figure 4.131. Example of Fan Trap.



As you're creating a new worksheet, Discoverer automatically detects fan trap situations, unless the **Disable fan-trap Detection** option is deselected in the **Options** dialog. If the option is not selected, Discoverer will prevent queries from being built with a fan trap condition. The following Error Notice will be given

Figure 4.132. Fan Trap Error Notice.

NOTE:

If the **Disable Fan Trap Detection** option is selected, the query could return ambiguous results based on the relationships or non-relationships between tables.

4.10.5.3. About Multiple Join Paths. When you create new worksheets, the data items in the worksheets are often stored in multiple folders in the database. Discoverer checks to make sure that these multiple folders have a clear, unambiguous relationship between them, and therefore, that the relationships among the data items is also clear and unambiguous.

For example, suppose a database contains two folders--one for information about sales orders and another for information about customers. Both folders contain the data item "Customer ID" because each sales order is for a customer specified by the Customer ID, and an ID number identifies each customer in the Customer folder. In this case, if you run a query about sales order details and also want to see customer details, such as first and last name, Discoverer can clearly determine which customers are associated with each sale by relating the Customer ID to the sales details and customer details.

However, some databases organize information so the relationship between items in different folders is ambiguous. This means that data items can be associated with each other in multiple ways, which is a situation known as a "multiple join path." As you are creating new worksheets, Discoverer can automatically detect and warn you if the potential for multiple join paths exists because, if it does, Discoverer might associate the items in a way you did not expect or intend. Thus, when you query the database, the results might not be what you intend either.

The warning that a multiple join path situation exists is not an error message; the warning merely advises you that the database contains relationships among data items that you might not know exist. If Discoverer detects and warns you of a multiple join path situation, please contact your Discoverer Administrator who can determine if the database's organization needs to be modified.

Discoverer automatically detects multiple join paths only if the **Disable Multiple Join Path Detection** option is deselected on the **Options** dialog. If that option is not selected, Discoverer builds your new worksheets without checking for or warning you about multiple join paths.

4.10.5.4. Using SQL. If you are familiar with SQL, you can analyze the SQL statements that

Discoverer executes against the database.

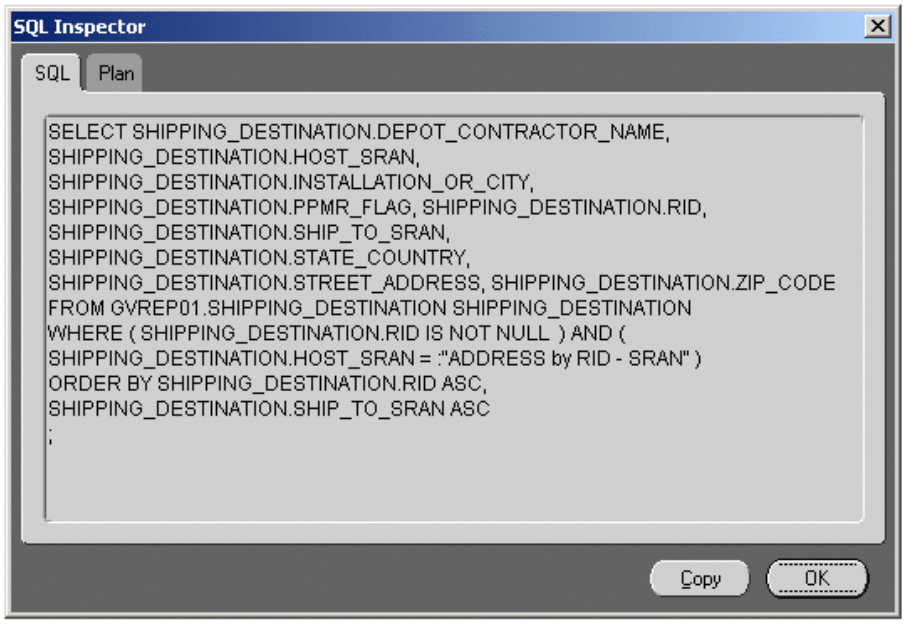
4.10.5.4.1. Looking at the SQL Statements for Worksheets.

To see a worksheet's SQL statements:

1. Choose **Sheet**, and then **Show SQL**.

The **SQL Inspector** dialog box appears. It shows the SQL statements used to create your current worksheet.

Figure 4.133. SQL Inspector, SQL Tab.



2. Click **Copy** to copy the statements and paste them to another SQL program.

The SQL statements Discoverer uses to open a workbook or worksheet involve complex programming. Therefore, you cannot simply copy a worksheet's SQL and use it to open another workbook or worksheet.

3. Click **OK** to close the SQL Inspector dialog box.

4.10.5.4.2. Looking at an SQL Execution Plan.

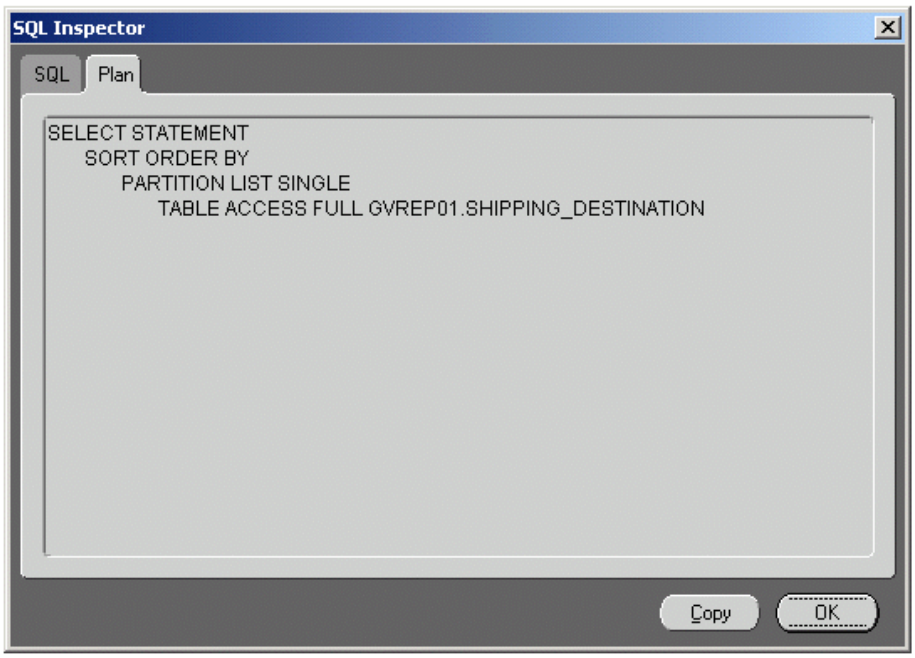
To see a worksheet's Execution Plan:

1. Choose **Sheet**, and then **Show SQL**.

The SQL Inspector dialog appears.

2. Click the **Plan** tab.

Figure 4.134. SQL Inspector, Plan Tab.



4.10.5.4.2.1. Using the Discoverer Execution Plan. **Plan** tab displays the Execution Plan chosen by the Oracle Server for the query request. The Execution Plan defines the sequence of operations that the Oracle Server performs to execute the SQL statement. You can look at an Execution Plan to see how a SQL statement is being executed. For example, when using Summaries, you may wish to check that a query is using a Summary or Materialized View created by your Discoverer Administrator.

Attachment 4A-1

AUTHORIZED IN-USE DETAIL ORG/SHOP COUNTS REPORT

4A1.1. Purpose. This report will read all Authorized In Use Details on file and provide a file of counts that can be printed or imported into Excel. The files will include totals for the Org/Shop's, Org's and SRAN. Totals will be displayed for the on-hand quantity, authorized quantity and extended dollar value.

4A1.2. Program Logic. The program accepts parameters for SRAN, then scans the Authorized In Use Detail and retrieves selected records. The SRAN, ORG SHOP and Account Code fields are displayed as page items with totals at the bottom.

4A1.2.1. Computed Fields.

4A1.2.1.1. AUTH QTY EXTENDED COST = AUTHORIZED QUANTITY*UNIT PRICE (Authorized Quantity multiplied by the Unit Price)

4A1.2.1.2. O/H QTY EXTENDED COST = QUANTITY ON HAND*UNIT PRICE (Quantity On-Hand multiplied by the Unit Price)

4A1.2.2. Parameters. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A1.3. References. N/A

4A1.4. Distribution. As Requested.

Attachment 4A-2

DELIVERY DESTINATION LISTING

4A2.1. Purpose. To provide a listing of all Delivery Destination records loaded in the Standard Base Supply System.

4A2.2. Program Logic.

4A2.2.1. Delivery Destination by Organization (ORG) Code Sheet - Accepts parameters for SRAN. It scans and retrieves selected records from the Delivery Destination and Organization Cost Center Records (OCCR). The SRAN is displayed as a page item. The records are sorted by ORG code within SRAN and then Shop Code. Delivery Destination and ORG Cost Center data are displayed.

4A2.2.2. Delivery Destination by Delivery Destination Code Sheet - Accepts parameters for SRAN. It scans and retrieves selected records from the Delivery Destination and Organization Cost Center Records (OCCR). The SRAN is displayed as a page item. The records are sorted by delivery destination code within SRAN. Delivery destination and ORG cost center data are displayed.

4A2.2.3. Computed Fields. N/A

4A2.2.4. Parameters. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A2.3. References. See chapter 25, section 25A.

4A2.4. Distribution. As Requested.

Attachment 4A-3

DETAIL RECORD COUNTS REPORT

4A3.1. Purpose. To provide a report of the total number of records on the database for each type of detail loaded.

4A3.2. Program Logic. Applies to all sheets. Accepts parameters for SRAN. Scans and displays the selected detail and provides count. The SRAN is displayed as a page item. The following sheets are available:

Adjusted-Level-Detail RDO-Suspense-Detail

Airborne-MRSP-Detail REM-Vehicles-Only-Detail

Authorized-In-Use-Detail Serialized-Control-Detail

Due-In Shipment-Suspense-Detail

Due-In-From-Maintenance-Detail Special-Spares-Detail

Due-Out SPRAM-Detail

EOQ-Consumption-Detail Status-FLP-MILSTRIP-Detail

Excess-Report-Detail Status-Local-Purchase-Detail

Item Status-Ship-Detail

Master-Bench-Stock-Detail Supply-Point-Detail

MICAP-Suspense-Detail Unserviceable-Detail

MSK-Detail WRM-WCDO-Spares-Detail

Non-Airborne-MRSP-Detail

4A3.2.1. Computed Fields. Applies to all sheets. Counts are data-point item aggregates contained within Discoverer.

4A3.2.2. Parameters. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A3.3. References. See chapter 25, section 25A.

4A3.4. Distribution. As Requested.

Attachment 4A-4

DODAACS BY DODAACS AND RID

4A4.1. Purpose. To provide listing of all Department of Defense Activity Address Code (DODAAC) Records loaded in the Standard Base Supply System (SBSS).

4A4.2. Program Logic.

4A4.2.1. Address by DODAAC Sheet - Accepts parameters for SRAN. It scans and retrieves selected records from the Shipping Destination record. The SRAN is displayed as a page item. The records are sorted by Ship to SRAN. Shipping Destination data is displayed.

4A4.2.2. Address by RID Sheet - Accepts parameters for SRAN. It scans and retrieves selected records from the Shipping Destination record. The SRAN is displayed as a page item. The records are sorted by Routing Identifier. Shipping Destination data is displayed.

4A4.2.3. Computed Fields. N/A

4A4.2.4. Parameters. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A4.3. References. See chapter 25, section 25A.

4A4.4. Distribution. As Requested.

Attachment 4A-5

DUE-IN & DUE-OUT MISLINKED

4A5.1. Purpose. Provides listing of error conditions between Due-in and Due-out details.

4A5.2. Program Logic.

4A5.2.1. D/Is marked for a D/O which is not present Sheet (Corresponding D/O is not loaded for the D/I) - Accepts parameters for SRAN. It scans the due-in detail, due-out detail, and item table. It then retrieves all due-in details that contain a valid due-out document number in the appropriate field but the due-out detail is not present. SRAN is displayed as a page item. Records are sorted by stock number. Item table, due-in, and due-out detail information is displayed.

4A5.2.2. D/Os marked for a D/I which is not present Sheet, (Corresponding D/I is not loaded for the D/O)- Accepts parameters for SRAN. It scans the due-in detail, due-out detail, and item table. It then retrieves all due-out details that contain a valid due-in requisition number in the appropriate field but the due-in detail is not present. SRAN is displayed as a page item. Records are sorted by stock number. Item table, due-in, and due-out detail information is displayed.

4A5.2.3. D/Os not UND 'C' not marked for a D/I Sheet - Accepts parameters for SRAN. It scans the due-out detail and item table. It then retrieves due-out details with an urgency of need (UND) designator other than 'C' that do not have a due-in document number in the appropriate field. SRAN is displayed as a page item. Records are sorted by stock number. Item table and due-out detail information is displayed.

4A5.2.4. Due-Outs Firm with no FY obligation Sheet - Accepts parameters for SRAN. It scans the due-out detail and item table. It then retrieves due-out details meeting all of the following criteria:

Firm

Fiscal Year Obligation is "Null"

Budget Code = 9, 8, 0, *, or $

Activity Code = X, R, P, J, E, or D

NOTE: SRAN is displayed as a page item. Records are sorted by stock number. Item table and due-out detail information is displayed.

4A5.2.5. Computed Fields. N/A

4A5.2.6. Parameters. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A5.3. References. See chapter 25, **section 25A**.

4A5.4. Distribution. As Requested

Attachment 4A-6

DUE-INS WITH NO STATUS OR DUE-INS WITH BAD STATUS

4A6.1. Purpose. Provides a listing of all due-in details that do not have a corresponding status follow-up military standard requisitioning & issue procedures (MILSTRIIP) detail. It also selects status MILSTRIP details that have "Bad Status". Bad status is defined as follow-up status counter "less than or equal to" the value entered in the parameter.

4A6.2. Program Logic.

4A6.2.1. All D/Is & No Status Sheet - Accepts parameters for SRAN, and routing identifier (RID). It scans the due-in detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details that do not have a corresponding status follow-up MILSTRIP detail. SRAN is displayed as a page item. Records are sorted by RID and then due-in date serial number. Item table, due-in, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.2. All D/Is & Bad Status Sheet - Accepts parameters for SRAN, RID, and supply status indicator. It scans the due-in detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details that have bad status. Bad status is defined as a follow-up status counter "less than or equal to" the value entered in the parameter. SRAN and supply status are displayed as page items. Records are sorted by RID and then due-in date serial number. Item table, due-in, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.3. D/Is w/ D/Os & No Status Sheet - Accepts parameters for SRAN, and RID. It scans the due-in detail, due-out detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details, which have a linked due-out, and do not have a corresponding status follow-up MILSTRIP detail. SRAN is displayed as a page item. Records are sorted by RID and then due-in date serial number. Item table, due-in, due-out, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.4. D/Is w/o D/Os & No Status Sheet - Accepts parameters for SRAN, and RID. It scans the due-in detail, due-out detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details, which do not have a linked due-out, and also do not have a corresponding status follow-up MILSTRIP detail. SRAN is displayed as a page item. Records are sorted by RID and then due-in date serial number. Item table, due-in, due-out, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.5. D/Is w/ D/Os & Bad Status Sheet - Accepts parameters for SRAN, RID, and supply status indicator. It scans the due-in detail, due-out detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details, which have a linked due-out, and have bad status. Bad status is defined as a follow-up status counter "less than or equal to" the value entered in the parameter. SRAN and supply status are displayed as page items. Records are sorted by RID and then due-in date serial number. Item table, due-in, due-out, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.6. D/Is w/o D/Os & Bad Status Sheet - Accepts parameters for SRAN, RID, and supply status indicator. It scans the due-in detail, due-out detail, status follow-up MILSTRIP detail, status ship detail, and item table. It then retrieves all due-in details, which do not have a linked due-out, and have bad status. Bad status is defined as a follow-up status counter "less than or equal to" the value entered in the parameter. SRAN and supply status are displayed as page items. Records are sorted by RID and then due-in date serial number. Item table, due-in, due-

out, status follow-up MILSTRIP, and status ship detail information is displayed.

4A6.2.7. Computed Fields. Extended Cost = due-in detail.quantity due in * item table.unit price

4A6.2.8. Parameters.

4A6.2.8.1. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A6.2.8.2. RID (Routing Identifier) - This will accept any valid RID. The RID may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single RID, group of RIDs or ALL RIDs from the dropdown list provided.

4A6.2.8.3. Supply Status Indicator - This will accept any status follow-up counter (99 or less). The counter may be typed in or selected from the dropdown list provided. Multiple entries are not permitted. Although other values are present in the dropdown list, only numerical values are valid.

4A6.3. References. See chapter 25, **section 25A**.

4A6.4. Distribution. As Requested

Attachment 4A-7

DUE-OUT REPORT

4A7.1. Purpose. Provides a listing of all due-out details. This query is very similar to the R31.

4A7.2. Program Logic.

4A7.2.1. Due-Out Report Sheet - Accepts parameters for SRAN, Organization (ORG) Code, Shop Code, and Urgency of Justification Code (UJC). It scans the due-in detail, due-out detail, and item table. It then retrieves all due-out details. SRAN is displayed as a page item. Records are sorted by due-out document number. Item table, due-out, and due-in detail information is displayed.

4A7.2.2. Requisitioned Due-Outs Sheet - Accepts parameters for SRAN, Organization (ORG) Code, Shop Code, Urgency of Justification Code (UJC), and Routing Identifier (RID). It scans the due-in detail, due-out detail, status follow-up MILSTRIP detail, status ship detail, status local purchase detail, and item table. It then retrieves all due-out details that have a corresponding due-in detail. SRAN and RID are displayed as page items. Records are sorted by due-out document number. Item table, due-out, due-in, status follow-up MILSTRIP, status local purchase detail, and status ship detail information is displayed.

4A7.2.3. Computed Fields. Due-out Extended Price = due-out detail.due-out quantity * item table.unit price

4A7.2.4. Parameters.

4A7.2.4.1. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A7.2.4.2. ORG (Organization) Code - This will accept any valid ORG. The ORG may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single ORG, group of ORGs or ALL ORGs from the dropdown list provided.

4A7.2.4.3. Shop Code - This will accept any valid shop code. The shop code may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single shop code, group of shop codes or ALL shop codes from the dropdown list provided.

4A7.2.4.4. UJC (Urgency of Justification Code) - This will accept any valid UJC. The UJC may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single UJC, group of UJCs or ALL UJCs from the dropdown list provided.

4A7.2.4.5. RID (Routing Identifier) - This will accept any valid RID. The RID may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single RID, group of RIDs or ALL RIDs from the dropdown list provided.

4A7.3. References. See chapter 25, **section 25A**.

4A7.4. Distribution. As Requested

Attachment 4A-8

EXCEPTION PHRASE LIST

4A8.1. Purpose. To provide a list of exception phrases used to facilitate the addition and/or deletion of exception codes.

4A8.2. Program Logic.

4A8.2.1. Exception Phrase Listing - Accepts parameters for SRAN and Exception Type. Scans the Exception_Phrases table and retrieves all phrases that are not null. The records are sorted by exception code and have page items that include the SRAN and Exception Type.

4A8.2.2. Shipment Exception Override Listing - Accepts parameters for SRAN. Scans the Shp_Exception_Override table and retrieves all Shipment Exception Phrases. The records are sorted by exception code and have the SRAN as a page item.

4A8.2.3. Requisition Modifier Listing - Accepts parameters for SRAN. Scans the Rqn_ Exception_Override table and retrieves all Requisition Modifiers. The records are sorted by exception code and have SRAN as a page item.

4A8.2.4. Computed Fields. N/A

4A8.2.5. Parameters.

4A8.2.5.1. SRAN - This will accept any valid SRAN. If single or multiple entries are needed, select using dropdown list provided or by manually typing in the SRAN.

4A8.2.5.2. EXCEPTION TYPE - This will accept any valid Exception Type. If single or multiple entries are needed, select using dropdown list provided or by manually typing in the Exception Type.

4A8.3. References. See chapter 6, **attachment 6B-3**.

4A8.4. Distribution. As requested.

Attachment 4A-9

INVENTORY ACCURACY TRENDS

4A9.1. Purpose. To provide a consolidated listing of year-to-date inventory adjustments which will make it possible to determine if accuracy fluctuations call for increased research and analysis.

4A9.2. Program Logic. Scans the consolidated transaction history (CTH) area and selects all transaction histories with a transaction identification code that is equal to IAD, type account code is unequal to P, and the third position of 704-STATUS- OR-ADVICE-CODE is equal to A, B, C, D, F, or 9.

4A9.2.1. Computed Fields.

4A9.2.1.1. U/O = DECODE(SUBSTR(TYPE TRANSACTION PHRASE CODE,2,1),'B','OVER','D','OVER','H','OVER','L','OVER','P','OVER','J','OVER','N','OVER','SHORT')

4A9.2.1.2. UNITS = SUM(ACTION QUANTITY)

4A9.2.1.3. ADJ TYPE = DECODE(TYPE ADJUSTMENT CODE,'A','AUTO-COMPL','9','AUTO-SAMPLE','B','SAMPLE','C','COMPLETE','D','SPECIAL','F','IDENT CHNG',TYPE ADJUSTMENT CODE)

4A9.2.1.4. TRANS DATE SERIAL NBR = TRANSACTION DATE||TRANSACTION SERIAL NUMBER

4A9.2.1.5. WHSE/ ORG/ KIT = DECODE(SUBSTR(MARK FOR,1,1),'0',SUBSTR(MARK FOR,1,3),SUBSTR(MARK FOR,1,6))

4A9.2.2. Parameters. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A9.3. References. **Chapter 20**.

4A9.4. Distribution. As requested

Attachment 4A-10

ITEM RECORDS WITH BALANCES AND DUE-OUTS

4A10.1. Purpose. Provides a listing of all item records that have a serviceable balance and also have a due-out established.

4A10.2. Program Logic. Accepts parameters for SRAN and type of due-out (memo or firm). It scans the due-out detail, interchangeable and substitute group (I&SG) stock number relationship, and item table. It then retrieves all item records that have a serviceable balance and also have an established due-out. SRAN and MFF (Memo/Firm Flag) are displayed as page items. Records are sorted by stock number. Item table, due-out detail, and I&SG stock number relationship information are displayed.

4A10.2.1. Computed Fields. N/A

4A10.2.2. Parameters.

4A10.2.2.1. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A10.2.2.2. MFF (Memo/Firm Flag) - This will accept either a "1" or "0". The MFF may be typed in; if both entries are typed a comma must separate them. Selection may also be made by a single MFF, or both MFFs from the dropdown list provided.

4A10.3. References. See chapter 25, **section 25A**.

4A10.4. Distribution. As Requested

Attachment 4A-11

MOBILITY EQUIPMENT REGISTER

4A11.1. Purpose. To provide a list of mobility equipment assets for use at base level and to compute percentages of assets on hand.

4A11.2. Program Logic. Accepts parameters for SRAN, Org Code and WRM Application Type. Scans Item_Table and Authorized_In_Use_Dtl tables and retrieves all items bases upon parameter plus Use_Code of "A". The records are sorted by Document Number and have page items that include SRAN, ORG Code and WRM Application.

4A11.2.1. Computed Fields.

4A11.2.1.1. OVER/SHORT QTY - This field is computed by adding the Deployed Quantity and Quantity on Hand minus the Authorized Quantity. A Sum is computed on each change of Document Number.

4A11.2.1.2. TOTALS - Totals are provided for Total Line Items, Total Authorized Quantity, Grand Total In Use, Grand Total Deployed Quantity and Grand Total Over/Short Quantity.

4A11.2.2. Parameters.

4A11.2.2.1. SRAN - This will accept any valid SRAN. If single or multiple entries are needed, select using dropdown list provided or by manually typing in the SRAN.

4A11.2.2.2. ORG CODE - This will accept any valid Organization Code. If single or multiple entries are needed, select using dropdown list provided or by manually typing in the Organization Code.

4A11.2.2.3. WRM APPLICATION CODE - This will accept any valid WRM Application Code. If single or multiple entries are needed, select using dropdown list provided or by manually typing in the WRM Application Code.

4A11.3. References. See chapter 6, **attachment 6B-75**.

4A11.4. Distribution. As Requested

Attachment 4A-12

MOBILITY READINESS SPARES PACKAGE (MRSP) & IN-PLACE READINESS SPARES PACKAGE (IRSP) REPORT

4A12.1. Purpose. Provides a listing of MRSP/IRSP authorizations and assets. It is also a

product to perform reconciliation, identify shortages and excesses, and facilitate control of inventory. It closely replicates the R43, R52, etc.

4A12.2. Program Logic.

4A12.2.1. Airborne Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the airborne mobility readiness spares package detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail, and item table. It then retrieves all item records that have an airborne MRSP detail assigned. SRAN is displayed as a page item. Records are group sorted by airborne MRSP detail number, stock number, authorized quantity, quantity airborne MRSP short, and quantity on hand. Item table, airborne MRSP, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail, and I&SG stock number relationship information are displayed.

4A12.2.2. MSK Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the mission support kit (MSK) detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail, and item table. It then retrieves all item records that have an MSK detail assigned. SRAN is displayed as a page item. Records are group sorted by MSK detail number, stock number, authorized quantity, quantity MSK short, and quantity on hand. Item table, MSK detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail, and I&SG stock number relationship information are displayed.

4A12.2.3. Special Spares Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the special spares detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail, and item table. It then retrieves all item records that have a special spares detail assigned. SRAN is displayed as a page item. Records are group sorted by special spares detail number, stock number, authorized quantity, quantity special spares short, and quantity on hand. Item table, special spares detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail, and I&SG stock number relationship information are displayed.

4A12.2.4. HPMSK Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the high priority mission support kit (HPMSK) detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail and item table. It then retrieves all item records that have an HPMSK detail assigned. SRAN is displayed as a page item. Records are group sorted by HPMSK detail number, stock number, authorized quantity, quantity HPMSK short and quantity on hand. Item table, HPMSK detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail and I&SG stock number relationship information are displayed.

4A12.2.5. Non-Airborne Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the non-airborne MRSP detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail, and

item table. It then retrieves all item records that have a non-airborne MRSP detail assigned. SRAN is displayed as a page item. Records are group sorted by non-airborne MRSP detail number, stock number, authorized quantity, quantity non-airborne MRSP short, and quantity on hand. Item table, non-airborne MRSP detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail, and I&SG stock number relationship information are displayed.

4A12.2.6. IRSP Sheet - Accepts parameters for SRAN, organization (ORG) code, and shop code. It scans the in-place readiness spares package (IRSP) detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail and item table. It then retrieves all item records that have an IRSP detail assigned. SRAN is displayed as a page item. Records are group sorted by IRSP detail number, stock number, authorized quantity, quantity IRSP short and quantity on hand. Item table, IRSP detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detai, and I&SG stock number relationship information are displayed.

4A12.2.7. WCDO Sheet - Accepts parameters for SRAN. It scans the war consumable distribution objective (WCDO) detail, due-out detail, due-in detail, interchangeable and substitute group (I&SG) stock number relationship, status follow-up military standard requisitioning & issue procedures (MILSTRIP) detail, status ship detail and item table. It then retrieves all item records that have a WCDO detail assigned. SRAN is displayed as a page item. Records are group sorted by WCDO detail number, stock number, authorized quantity, quantity WCDO short, and quantity on hand. Item table, WCDO detail, due-out detail, due-in detail, status follow-up MILSTRIP detail, status ship detail and I&SG stock number relationship information are displayed.

4A12.2.8. Computed Fields.

4A12.2.8.1. Quantity Airborne MRSP Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.2. Quantity Airborne MRSP Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.8.3. Quantity HPMSK Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.4. Quantity HPMSK Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.8.5. Quantity MSK Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.6. Quantity MSK Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.8.7. Quantity Non-Airborne MRSP Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.8. Quantity Non-Airborne MRSP Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.8.9. Quantity Special Spares Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.10. Quantity Special Spares Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.8.11. Quantity WCDO Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.12. Quantity WCDO Short = DECODE(GREATEST(AUTHORIZED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-QUANTITY ON HAND)

4A12.2.8.13. Quantity WRM IRSP Excess = DECODE(GREATEST(QUANTITY ON HAND-AUTHORIZED QUANTITY,0),0,0,QUANTITY ON HAND-AUTHORIZED QUANTITY)

4A12.2.8.14. Quantity WRM IRSP Short = DECODE(GREATEST(AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND,0),0,0,AUTHORIZED QUANTITY-DEPLOYED QUANTITY-QUANTITY ON HAND)

4A12.2.9. Parameters.

4A12.2.9.1. SRAN - This will accept any valid SRAN. The SRAN may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A12.2.9.2. ORG Code - This will accept any valid ORG Code. The ORG Code may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single ORG Code, group of ORG Codes or ALL ORG Codes from the dropdown list provided.

4A12.2.9.3. Shop Code - This will accept any valid Shop Code. The Shop Code may be typed in; if multiple entries are typed a comma must separate them. Selection may also be made by a single Shop Code, group of Shop Codes or ALL Shop Codes from the dropdown list provided.

4A12.3. References. See **chapter 25, section 25A**.

4A12.4. Distribution. As Requested

Attachment 4A-13

ORGANIZATION BENCH STOCK LISTING

4A13.1. Purpose. To provide listings of items authorized on bench stock for applicable activities, control the assignment of bench stock document numbers and assist shop personnel in the location of bench stock items.

4A13.2. Program Logic.

4A13.2.1. Bench Stock Listing (ORG) Sheet - Accepts parameters for SRAN and Organization Code. Scans the master bench stock detail records and retrieves the selected records. The SRAN, ORG Code and SHOP Code fields are displayed as Page Items. The records are then sorted by item number within SRAN, ORG code and shop code. Item record and master bench stock detail data are displayed.

4A13.2.2. Bench Stock Listing (ORG & SHOP) Sheet - Accepts parameters for SRAN, Organization Code and Shop Code. Scans the master bench stock detail records and retrieves the selected records. The SRAN, ORG Code and SHOP Code fields are displayed as Page Items. The records are then sorted by item number within SRAN, ORG code and shop code. Item record and master bench stock detail data are displayed.

4A13.2.3. Part Number Reference Listing Sheet - Accepts parameters for SRAN, Organization Code and Shop Code. Scans the master bench stock detail records and retrieves the selected records. The SRAN, ORG Code and SHOP Code fields are displayed as Page Items. The records are then sorted by item number within SRAN, ORG code and shop code. Item record and master bench stock detail data are displayed along with an additional column for PART NUMBER. There may be multiple Part Numbers per Stock Number, so a new line will show for each part number.

4A13.2.4. Computed Fields.

4A13.2.4.1. Computed quantity = The daily demand rate (DDR) times the day requirement.

4A13.2.4.2. DDR = The cumulative recurring demands divided by (the current date minus DOFD). If the current date minus the DOFD is less than 90 days, then 90 days is used.

4A13.2.4.3. Day requirement = Bench stock details with MRA flags 1 or 2 will use 30 days. MRA flags E, 3, or 4 will use 45 days. MRA flags A, B, or C will use 60 days. When the MRA flag is blank or D, the bench stock stockage days will be used from the organization record. If the bench stock stockage days is zero, 30 days will be used.

4A13.2.4.4. Extended $ Value = Unit Price * Authorized quantity

4A13.2.5. Parameters.

4A13.2.5.1. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A13.2.5.2. ORG - This will accept any valid Organization code. The ORG code can be typed in. If multiple entries are typed they must be separated by a comma, a single ORG code, multiple ORG codes or all ORG codes can be selected from the dropdown list provided.

4A13.2.5.3. SHOP - This will accept any valid SHOP code. The SHOP code can be typed in. If multiple entries are typed they must be separated by a comma, a single SHOP code, multiple SHOP codes or all SHOP codes can be selected from the dropdown list provided.

4A13.3. References. See **chapter 25, section 25A**.

4A13.4. Distribution. As Requested

Attachment 4A-14

SHELF LIFE CONTROL LIST (NGV401)

4A14.1. Purpose. To provide a listing of items in the Base Supply warehouse(s) that require inspection due to possible deterioration while on the shelf and a listing of items that require functional check before installation or issue.

4A14.2. Program Logic.

4A14.2.1. Functional Check List Sheet - Accepts parameter for SRAN then scans the Item table and selects all item records having a Functional Check Flag Not Equal to 0 (zero) and Functional Check Flag NOT NULL for the SRAN or SRANs in the parameter. The SRAN and the ORG & SHOP code are displayed as page items. The Item Table data is then displayed in ORG & SHOP sequence.

4A14.2.2. Shelf Life Code List Sheet - Accepts parameter for SRAN then scans the Item table and selects all item records having a Shelf Life Code Not Equal to 0 (zero) and Shelf Life Code NOT NULL for the SRAN or SRANs in the parameter. The SRAN and the Shelf Life Code are displayed as page items. The Item Table data is then displayed in Stock Number Sequence.

4A14.2.3. Selected Self Life Code List Sheet - Accepts parameters for SRAN and Shelf Life Code then scans the Item Table and selects item records that meet the input criteria. The SRAN and the Shelf Life Code are displayed as page items. The Item Table data is then displayed in Stock Number Sequence.

4A14.2.4. Computed Fields. N/A

4A14.2.5. Parameters.

4A14.2.5.1. SRAN - This Parameter will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A14.2.5.2. Shelf Life Code - This parameter will accept any valid 1 position Shelf Life Code. The Shelf Life Code may be typed in, if multiple Shelf Life Codes are typed, they must be separated by a comma. May also select a single Shelf Life Code, a Group of Self Life Codes or All Shelf Life Codes from the dropdown list provided.

4A14.3. References. See **chapter 5**.

4A14.4. Distribution. As requested.

Attachment 4A-15

SPECIAL LEVEL ANALYSIS

4A15.1. Purpose. To provide SMAG managers with data to review and determine the impact of assigned special levels of inventory investment and the dollar value of minimum levels.

4A15.2. Program Logic.

4A15.2.1. Special Level Analysis (ALL) Sheet - Accepts parameters for SRAN and Type Account Code. Scans and selects applicable special level details. The program selects item records from the item/detail record area which have a type level code of A, B, C, E, or F.

SRAN and Budget Code are displayed as page items.

4A15.2.2. Special Level Analysis by EEX code Sheet - Accepts parameters for SRAN, Type Account Code and Excess Exception Code. Scans and selects applicable special level details that match the parameters. Item Record and Special level detail data are displayed. SRAN, Budget Code and Excess Exception Code are displayed as page items.

4A15.2.3. Special Level Analysis by Application code Sheet - Accepts parameters for SRAN, Type Account Code and Application Code. Scans and selects applicable special level details that match the parameters. Item Record and Special level detail data are displayed. SRAN, Budget Code and Application Code are displayed as page items.

4A15.2.4. Computed Fields.

4A15.2.4.1. $ VALUE MIN > DMD = "MIN LVL > DMD LVL"*UNIT PRICE

4A15.2.4.2. MIN LVL > DMD LVL = DECODE(GREATEST(AUTHORIZED QUANTITY-DEMAND LEVEL,0),0,0,AUTHORIZED QUANTITY-DEMAND LEVEL)

4A15.2.4.3. $ VALUE DMD LVL = UNIT PRICE*DEMAND LEVEL

4A15.2.4.4. $ VALUE MIN LVL = UNIT PRICE*AUTHORIZED QUANTITY

4A15.2.5. Parameters.

4A15.2.5.1. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A15.2.5.2. Type Account Code - This will accept any valid Type Account Code, the Type Account Code may be typed in, if multiple entries are typed they must be separated by a comma or select a single Type Account Code, group of Type Account Codes or ALL Type Account Codes from the dropdown list provided.

4A15.2.5.3. Excess Exception Code - This will accept any valid Excess Exception Code, the Excess Exception Code may be typed in, if multiple entries are typed they must be separated by a comma or select a single Excess Exception Code, group of Excess Exception Codes or ALL Excess Exception Codes from the dropdown list provided.

4A15.2.5.4. Application Code - This will accept any valid Application Code, the Application Code may be typed in, if multiple entries are typed they must be separated by a comma or select a single Application Code, group of Application Codes or ALL Application Codes from the dropdown list provided.

4A15.3. References. N/A.

4A15.4. Distribution. As requested.

Attachment 4A-16

STOCK NUMBER DIRECTORY

4A16.1. Purpose. To provide a tool for Equipment and Supply managers for determining the items included within their respective accounts.

4A16.2. Program Logic.

4A16.2.1. Master SNUD Sheet - Accepts parameters for SRAN, Type Account and FSC. Scans the item table and retrieves selected records that match the parameters entered. SRAN and Type Account are displayed as page items. The records are then sorted in Stock Number sequence within SRAN and Type Account Code. Item Table data is displayed.

4A16.2.2. IEE SNUD Sheet - Accepts parameters for SRAN and type account code. Scans the item table and selects records based on the parameters with Federal Supply Group = 51, 52, 75, 84, or 85 and Issue Exception Code = 3, 6, E, or K and retrieves selected records. The SRAN and Type Account Code are displayed as page items. The selected items are sorted in stock number sequence within SRAN and Type Account Code. Item Table data is displayed.

4A16.2.3. IEX Options SNUD Sheet - Accepts parameters for SRAN and Issue Exception Code. Scans Item table and selects records based on the parameters and retrieves selected records. The SRAN and IEX are displayed as page items. The records are sorted in stock number sequence within SRAN and IEX. Item Table data is displayed.

4A16.2.4. SNUD by Whse Sheet - Accepts parameters for SRAN and Warehouse/Stockroom. Scans the Item Table and selects records based on the parameters, then retrieves the selected records. The SRAN and Whse/Stockroom are displayed as page items. The records are sorted in Stock Number sequence within SRAN and Whse/Stockroom. Item table data is displayed.

4A16.2.5. SNUD by IEX & Whse Sheet - Accepts parameters for SRAN, Issue Exception Code, and Whse/Stockroom. Scans the Item Table and selects records based on the parameters, then retrieves the selected records. The SRAN, Issue Exception Code and Whse/Stockroom are displayed as page items. The records are sorted in Stock Number sequence within SRAN, Whse/Stockroom and Issue Exception Code. Item table data is displayed.

4A16.2.6. Computed Fields. N/A

4A16.2.7. Parameters.

4A16.2.7.1. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A16.2.7.2. Type Account Code (TAC) - This will accept any valid Type Account Code, the Type Account Code may be typed in, if multiple entries are typed they must be separated by a comma or select a single Type Account Code, group of Type Account Codes or ALL Type Account Codes from the dropdown list provided.

4A16.2.7.3. Issue Exception Code (IEX) - This will accept any valid IEX, the IEX may be typed in, if multiple entries are typed they must be separated by a comma or select a single IEX, group of IEX codes or ALL IEX codes from the dropdown list provided.

4A16.2.7.4. Whse/Stockroom (WHSE) - This will accept any valid Whse/Stockroom, the Whse/Stockroom may be typed in, if multiple entries are typed they must be separated by a comma or select a single Whse/Stockroom, group of Whse/Stockrooms or ALL Whse/Stockrooms from the dropdown list provided.

4A16.2.7.5. Federal Supply Class (FSC) - This will accept any valid Federal Supply Class, the Federal Supply Class may be typed in, if multiple entries are typed they must be separated by a

comma or select a single Federal Supply Class, group of Federal Supply Classes or ALL Federal Supply Classes from the dropdown list provided.

4A16.3. References. See **chapter 27, section 27H**.

4A16.4. Distribution. As requested

Attachment 4A-17

WAREHOUSE LOCATION COUNTS REPORT

4A17.1. Purpose. Provide a listing of all records with a warehouse location and to provide a file of counts. The files will be broken down to the 7th position of the warehouse location.

4A17.2. Program Logic. Accepts parameter for the SRAN. Scans item table and retrieves the selected records with a warehouse location. The SRAN, warehouse number and warehouse stockroom are displayed as Page Items. The records are then sorted by warehouse bin rows and warehouse horizontal bin rows. Warehouse bin rows, warehouse horizontal bin rows, serviceable balances, extended costs, and line items are displayed.

4A17.2.1. Computed Fields.

4A17.2.1.1. Extended Cost = Unit Price * Serviceable balance

4A17.2.1.2. Totals - Totals are displayed for each change of stockroom, bin row, and horizontal bin row.

4A17.2.2. Parameters. SRAN - This will accept any valid SRAN, the SRAN may be typed in, if multiple entries are typed they must be separated by a comma or select a single SRAN, group of SRANs or ALL SRANs from the dropdown list provided.

4A17.3. References. See chapter 25, **section 25A**.

4A17.4. Distribution. As requested